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March 27, 1989

CA 89-03/27/89

Mr. Ben Singh
Regional Project Officer
U.S. Environmental Protection Agency
Region II
26 Federal Plaza, Room 907
New York, New York 10278

Reference: EPA Contract No. 68-01-7038; Work Assignment No. R02-01-52; GMC Fisher Guide Division, Syracuse, New York; EPA ID No. NY002234440; Phase II RCRA Facility Assessment

Dear Mr. Singh:

Enclosed please find the Phase II RCRA Facility Assessment (RFA) report for the General Motors Corporation (GMC) Fisher Guide Division facility located in Syracuse, New York.

The GMC plant was built in 1952 to manufacture steel automobile parts. Plating, buffing, inspection molding and dyecasting operations were also performed at the facility. In 1973, all plating operations were discontinued. GMC Fisher Guide now produces plastic automobile body and trim components manufactured by injection molding, painting, and assembly. Injection molding and the painting of plastic parts result in the generation of polychlorinated (PBC) biphenyl-contaminated hydraulic oils, wastes solvents, and paint sludge.

The facility occupies 84.7 acres of land on the north side of Syracuse, New York. The area surrounding the facility is industrial. The nearest residential area is located approximately 2,000 feet south of the plant. Ley Creek is located approximately 200 feet north of the GMC property and discharges into Lake Onondaga approximately 3-1/2 miles to the west.

A total of 72 SWMUs and 3 AOCs were identified as a result of the RFA. Tables I-1 and I-2 Chapter I list all SWMUs and AOCs identified at GMC Fisher Guide. Figures I-1 and I-2 in Chapter I show the location of all SWMUs and AOCs.

Releases of hazardous constituents to surface water and ground water have occurred at the site. The New York State Department of Environmental Conservation (NYDEC) issued a Consent Order to GMC in response to numerous reports of discharge of oil to Ley Creek. As part of the Consent Order, GMC conducted an investigation to locate the source of the oil. As a result of the investigation, GMC discovered that the Underground Oil Reclamation Sumps [Solid Waste Management Unit (SWMU) 13] were leaking. The Underground Oil Reclamation Sumps received PCB-contaminated oil from injection molders via the Oil Collection Trenches (SWMU 19). Subsequently, GMC sealed off the sumps and filled them with a cement/sand mixture. PCB-contaminated oil collected by the Oil Collection Trenches now are conveyed directly to the Oil Reclamation System located in the Wastewater Treatment Plant via above-ground piping. PCB-contaminated oils remain in the subsurface beneath the Manufacturing Building. The facility installed two sumps (Oil Reclaim Sumps 518 Moulder and 701 Moulder, SWMUs 17 and 18) beneath the floor of the Manufacturing Building. One sump was installed in 1985 and the other in 1988 after GMC discovered oily soil beneath the Manufacturing Building floor during remodeling construction activities. Approximately 100 gallons of oil have been pumped from the sump installed in 1985 (SWMU 17). Facility representatives stated that no oil had been removed from the sump recently. No oil has been pumped from the sump installed in 1988 (SWMU 18) (Reference 1).

GMC discovered leakage of paint thinner solvents from an underground pipeline in early 1985 (Thinner Tanks/Xylene Spill, AOC A) (Reference 47). The release of paint thinner solvents, consisting primarily of xylene, toluene, and ethyl benzene, most likely occurred over a period of time. GMC conducted an initial investigation to define the extent of contamination in April 1985. The underground pipeline carried paint thinner from three underground tanks containing product paint thinner. On February 19, 1986, a NYDEC Consent Order was issued, instructing GMC to submit water quality monitoring reports from nine monitoring wells in the vicinity of the underground thinner tanks and to continue monitoring for five years after four consecutive quarterly monitoring reports meet NYDEC criteria, as discussed in the Thinner Tank/Xylene Spill description on page IV-77 of this report (Reference 75). This order also instructed GMC to disconnect and cap all underground thinner lines and to initiate a program for identifying the extent of soil contamination caused by the solvent leak (Reference 75). GMC has now removed the tanks and has installed Interceptor Trenches (SWMU 28) to intercept the contaminated ground water (Reference 1).

Wastes generated at the plant include wastewater, oily rubbish, PCB-contaminated oils, waste hydraulic oils, molder purgings, and waste solvents. SWMUs identified during the RFA include surface impoundments, a hazardous waste drum storage area, wastewater collection sumps, ash management units, oil reclamation system units, ground-water remediation units, wastewater treatment units, a storm sewer, rubbish containers, waste accumulation areas, waste solvent storage tanks, a former landfill, and a former incinerator. Areas of Concern (AOCs) include the Thinner Tank/Xylene Spill (AOC A) and two soil stained areas (AOCs B and C).

Sampling has been suggested at AOC B, Oil Stains Near the Industrial Waste Sump. During the VSI, extensive oil staining was evident in a ditch located on the north side of the Industrial Waste Sump (SWMU 41). The staining was located beneath the opening of a clay pipe emerging from an embankment. Overflow from the Industrial Waste Sump previously discharged to the Lagoon (SWMU 1). GMC representatives are uncertain if the clay pipe observed during the Visual Site Inspection (VSI) is the same pipe that previously conveyed wastewater to the Lagoon; however, GMC representatives indicated that this pipe is no longer connected to a waste source. During the VSI, GMC representatives stated that the oil staining beneath the pipe opening was the result of rainwater splashing around in the pipe opening, washing out waste residues. The ditch receiving the discharge from the pipe is surrounded by a four-foot high concrete dike and is filled with crushed rock, underlain by a PVC liner. Facility representatives were unable to explain why the ditch is lined. Sampling of the crushed rock is suggested in order to determine if the oily residue contains hazardous constituents. If is further suggested that GMC be required to submit further information regarding the operation of this unit.

Soil sampling is also suggested at the following units:

- Drum Storage Area No. 2 (SWMU 4),
- Sludge Sump (SWMU 34),
- Equalization Tank 1 (SWMU 44),
- Filter Press Sump (SWMU 64), and
- Oil Stains Near the Wet Well (AOC C).

A subsurface investigation, as part of a RCRA Facility Investigation (RFI), has been suggested to determine the extent of PCB-contamination resulting from the leakage from the Underground Oil Reclamation Sumps (SWMU 13). A subsurface investigation has also been suggested for the Old Storm Sewer System (SWMU 66) to be conducted in conjunction with the RFI suggested for the Underground Oil Reclamation Sumps.

A subsurface investigation has been suggested at the Past Landfill (SWMU 69) to determine if the landfill contains hazardous constituents and if they are being released to the subsurface. Sampling of monitoring wells conducted in 1985 as part of the Thinner Tank/Xylene Spill investigation detected elevated levels of hazardous constituents in the vicinity of the landfill. The landfill may be a source of contamination.

Integrity testing is suggested at the following SWMUs:

- Powerhouse Wastewater Sump (SWMU 7),
- Oil Collection Trenches (SWMU 19),
- Industrial Waste Treatment Plant Sump (SWMU 22),
- Contaminated Ground Water Tank (SWMU 29),
- Interceptor Sumps (SWMU 30),
- Paint Room Sump (SWMU 31),
- Clarifier (SWMU 32),
- Sludge Sump (SWMU 34),
- Sludge Thickener Tank (SWMU 36),
- Sludge Holding Tank (SWMU 38),
- Holding Tanks (SWMU 40),
- Industrial Waste Sump (SWMU 41),
- Emergency Overflow Sump (SWMU 42),
- Deionized Water Sump (SWMU 43),
- Equalization Tank 1 (SWMU 44),
- Equalization Tanks 2 and 3 (SWMUs 45 and 46),
- Batch Tanks No. 1 and No. 2 (SWMU 48),
- Flotation/Sedimentation Tank (SWMU 49),
- Wet Well (SWMU 50),
- Waste Oil Bunkers (SWMU 54),
- Inactive Waste Oil Bunkers (SWMU 55), and
- Emulsifier Bunkers (SWMU 71).

All of the above SWMUs are inground or underground units containing waste materials and it was not possible to assess the integrity of the units during the VSI.

A detailed visual inspection of the following SWMUs is suggested to determine the necessity of more thorough integrity testing:

- Inactive Clarifier (SWMU 33),
- Inactive Sludge Sump (SWMU 35),
- Inactive Sludge Thickener Tank (SWMU 37), and
- Former Cyanide Tank No. 1 (SWMU 56).

These units have been emptied of waste contents and decontaminated. If a more detailed visual inspection indicates that past leakage may have occurred, then integrity testing or subsurface sampling at these units is suggested.

It should be noted that this RFA Phase II report suggests soil sampling at two SWMUs not discussed in the Sampling and Analysis Plan (S/A) submitted to Region II in February 1989. The following revisions are required in the S/A to make it consistent with the RFA:

1) The Filter Press Sump (SWMU 64) is located with the Drum Storage Area No. 2 (SWMU 4), for which soil sampling was to be conducted as part of the S/A. The Filter Press Sump can be sampled in conjunction with the Drum Storage Area No. 2. Sampling points recommended in the S/A are sufficient to determine releases from both units.

2) Soil sampling has been suggested at the Sludge Sump (SWMU 34). The S/A does not include soil sampling points at or near this unit.

Additional soil sampling recommendations are the result of further research conducted in preparing the RFA after the S/A Plan had been submitted.

Please call me or William L. Murphy Rohrer, the Work Assignment Manager (who can be reached at 612/227-6500), if you have any questions.

Yours truly,

James E Levin

James E. Levin
Technical Director

Enclosure

cc: L. Negron, EPA Region II
W. Ports, NYDEC
D. Bean
C. Saunders
K. Allison
W. Rohrer, DPRA

0218x

RCRA FACILITY ASSESSMENT PHASE II

OF THE

GENERAL MOTORS CORPORATION
FISHER GUIDE DIVISION
SYRACUSE, NEW YORK
NY002234440

Prepared for:

U.S. Environmental Protection Agency
Region II
26 Federal Plaza
New York, New York 10278

Prepared by:

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EPA Contract No. 68-01-7038
Work Assignment No. R02-01-52

March 1989

RCRA FACILITY ASSESSMENT PHASE II
OF THE
GENERAL MOTORS CORPORATION
FISHER GUIDE DIVISION
SYRACUSE, NEW YORK
NY002234440

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OF THE
GENERAL MOTORS CORPORATION
FISHER GUIDE DIVISION
SYRACUSE, NEW YORK
NY002234440

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RCRA FACILITY ASSESSMENT PHASE II
OF THE
GENERAL MOTORS CORPORATION
FISHER GUIDE DIVISION
SYRACUSE, NEW YORK
NY002234440

TABLES AND FIGURES

FIGURES:

TABLES:

I. INTRODUCTION

The 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) authorize the EPA to require corrective action for releases of hazardous wastes and/or hazardous constituents from solid waste management units (SWMUs) and other areas of concern (AOCs) at all operating, closed, or closing RCRA facilities. The intent of this authority is to address previously unregulated releases to soils, groundwater, surface water, or air, or from the generation of subsurface gas. The first phase of the corrective action program as established by the EPA is development of a RCRA Facility Assessment (RFA). The RFA includes a Preliminary Review (PR) of all available relevant documents, a Visual Site Inspection (VSI), and if appropriate, a Sampling Visit (SV).

This report summarizes the results of the PR and VSI phases of the RFA for General Motors Corporation, Fisher Guide Division (GMC Fisher Guide), in Syracuse, New York. GMC Fisher Guide occupies 84.7 acres on the north side of Syracuse. Wastes generated at the plant include process wastewater, oily rubbish, polychlorinated biphenyl (PCB)-contaminated oils, waste hydraulic oils, molder purgings, and waste solvents. SWMUs located at the facility include surface impoundments, a hazardous waste drum storage area, wastewater collection sumps, ash management units, oil reclamation system units, groundwater remediation units, wastewater treatment units, a storm sewer, rubbish containers, waste accumulation areas, waste solvent storage tanks, a former landfill, and a former incinerator. Areas of concern include a solvent spill area and two soil stained areas. A total of 72 SWMUs and 3 AOCs were identified as a result of the RFA. Table I-1 lists of all SWMUs identified at GMC Fisher Guide, and Table I-2 lists all AOCs identified. Figures I-1 and I-2 show the locations of all SWMUs and AOCs.

Chapter II of this report discusses the facility's location and the climate, topography, surface drainage, soils, geology, and hydrogeology. Chapter III gives a general plant description and discusses the history of ownership and land use, the regulatory history, the operation/process description, the waste streams and waste management practices, and the history of releases. A description of the SWMUs and AOCs identified are presented in Chapter IV. A narrative summary of the report is included in an executive summary in Chapter V. The release pathways are discussed in Chapter VI. A summary of conclusions regarding the release potential and suggested further actions for each unit is included as Chapter VII. References used to prepare this rep are

listed in Chapter VIII. A summary of the VSI and a photograph log of the SWMUs and AOCs is included as Attachment A. A copy of the VSI logbook is included as Attachment B. Attachment C includes miscellaneous tables and figures cited in the text.

TABLE I-1
List of Solid Waste Management Units
at
GMC Fisher Guide Division
Salina, New York

EPA I.D. Number NY002234440

Unit Number	Unit Name	Status
	RCRA- OR NYDEC-REGULATED UNITS	
1	Lagoon (NYDEC)	Inactive
2	Holding Pond (NYDEC)	Inactive
3	Drum Storage Area No. 1 (RCRA)	Active
4	Drum Storage Area No. 2 (RCRA)	Inactive
5	Hazardous Waste Accumulation Area (RCRA)	Active
6	Kolene Unit (RCRA)	Inactive
	POWERHOUSE UNITS	
7	Powerhouse Wastewater Sump	Active
8	Ash Silo	Active
9	Ash Scrubber	Active
10	Ash Baghouse	Active
11	Ash Pit	Active
12	Coal Elevator Sump	Active
	OIL RECLAMATION SYSTEM	
13	Underground Oil Reclamation Sumps (13)	Inactive
14	Underground Oil Storage Tanks (5)	Inactive
15	Portable Pumping Units (5)	Active
16	Dirty Oil Transfer Station	Active
17	Oil Reclaim Sump 518 Molder	Active
18	Oil Reclaim Sump 701 Molder	Active
19	Oil Collection Trenches	Active
20	Oil Collection Pans	Active
21	Dirty Oil Tanks (2)	Active
22	Industrial Waste Treatment Plant Sump	Active
23	Primary Dirty Oil Filter	Active
24	Vacuum Distillation Units (2)	Active
25	Secondary Dirty Oil Filter	Active
26	Dirty Oil Holding Tanks (2)	Active
27	Kidney Filters (2)	Active

TABLE I-1
List of Solid Waste Management Units
at
GMC Fisher Guide Division
Salina, New York

EPA I.D. Number NY002234440

Unit Number	Unit Name	Status
	WASTEWATER TREATMENT SYSTEM	
28	Interceptor Trenches (2)	Active
29	Contaminated Groundwater Tank	Active
30	Interceptor Sumps (6)	Active
31	Paint Room Sump	Active
32	Clarifier	Active
33	Inactive Clarifier	Inactive
34	Sludge Sump	Active
35	Inactive Sludge Sump	Inactive
36	Sludge Thickener Tank	Active
37	Inactive Sludge Thickener Tank	Inactive
38	Sludge Holding Tank	Active
39	Filter Press	Active
40	Holding Tanks (3)	Active
41	Industrial Waste Sump	Active
42	Emergency Overflow Sump	Active
43	Deionized Water Sump	Active
44	Equalization Tank 1	Active
45	Equalization Tank 2	Active
46	Equalization Tank 3	Active
47	Coalescing Plate Separators (2)	Active
48	Batch Tanks No. 1 and No. 2 (2)	Active
49	Flotation/Sedimentation Tank	Active
50	Wet Well	Active
51	Carbon Filtration Units (4)	Active
52	2,000-Gallon Waste Oil Tank	Active
53	5,000-Gallon Waste Oil Tank	Active
54	Waste Oil Bunkers (2)	Active
55	Inactive Waste Oil Bunkers (4)	Inactive
56	Former Cyanide Tank No. 1	Inactive
57	Former Sludge Holding Tanks (2)	Inactive
58	Vacuum Filters (2)	Inactive
59	Sludge Conveyor	Inactive
60	Corrugated Plate Interceptor Unit	Inactive
61	SO_2 Scrubbers (2)	Inactive

TABLE I-1
List of Solid Waste Management Units
at
GMC Fisher Guide Division
Salina, New York

EPA I.D. Number NY002234440

Unit Number	Unit Name	Status
62	Acid Alkali Tanks (3)	Inactive
63	Sludge Dumpster	Active
64	Filter Press Sump	Active
	MISCELLANEOUS UNITS	
65	Hoffman Filter Unit	Inactive
66	Old Storm Sewer System	Inactive
67	New Storm Sewer System	Active
68	Oil-Contaminated Rubbish Containers	Active
69	Past Landfill	Inactive
70	Flammable Storage Room Waste Accumulation Area	Active
71	Emulsifier Bunkers (2)	Active
72	Incinerator	Inactive

TABLE I-2

List of Other Areas of Concern
at
GMC Fisher Guide Division
Salina, New York

EPA I.D. NUMBER NY002234440

AOC NUMBER	AOC NAME
A	Thinner Tanks/Xylene Spill
B	Oil Stains Near the Industrial Waste Sump
C	Oil Stains Near the Wet Well

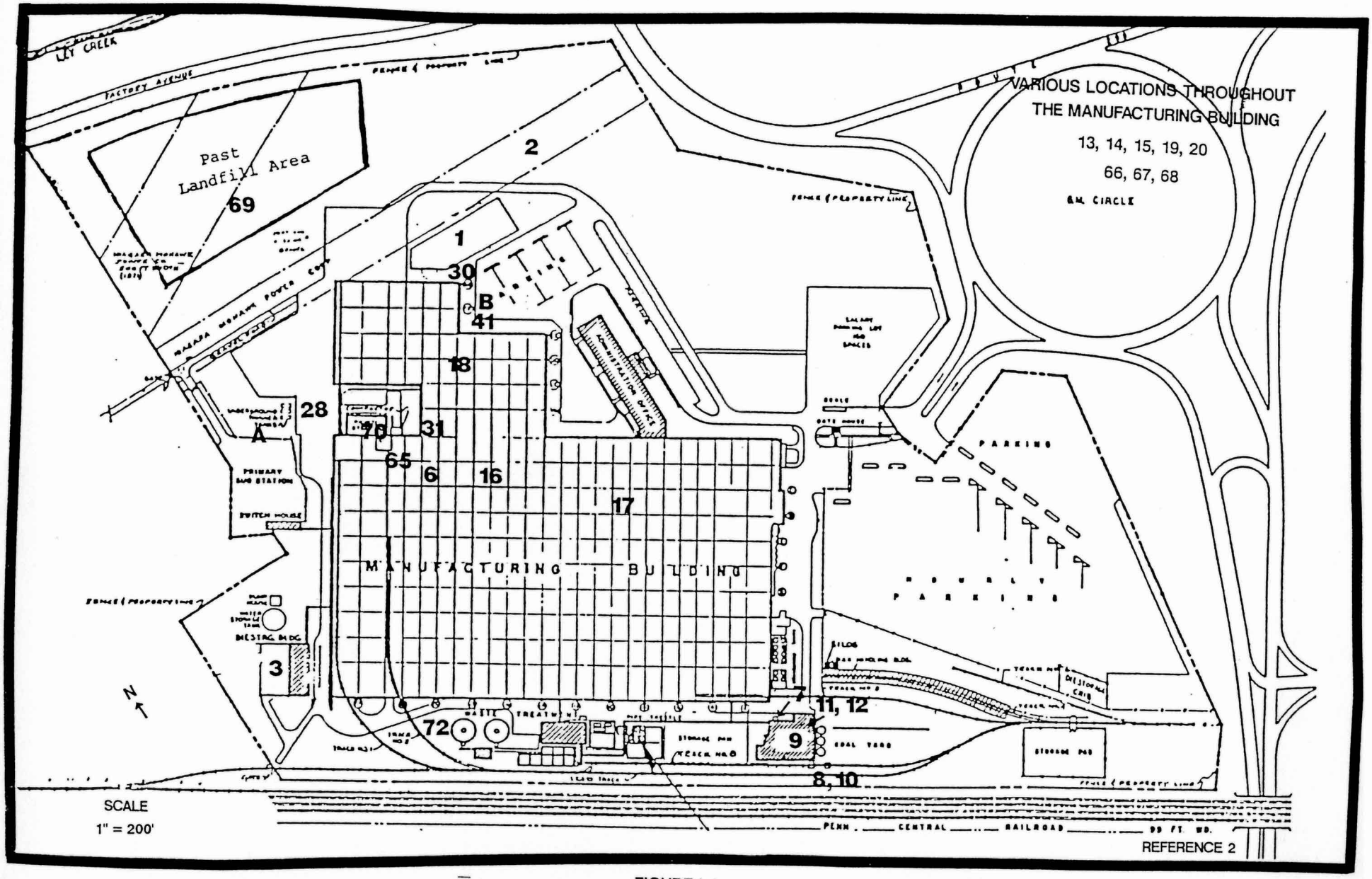
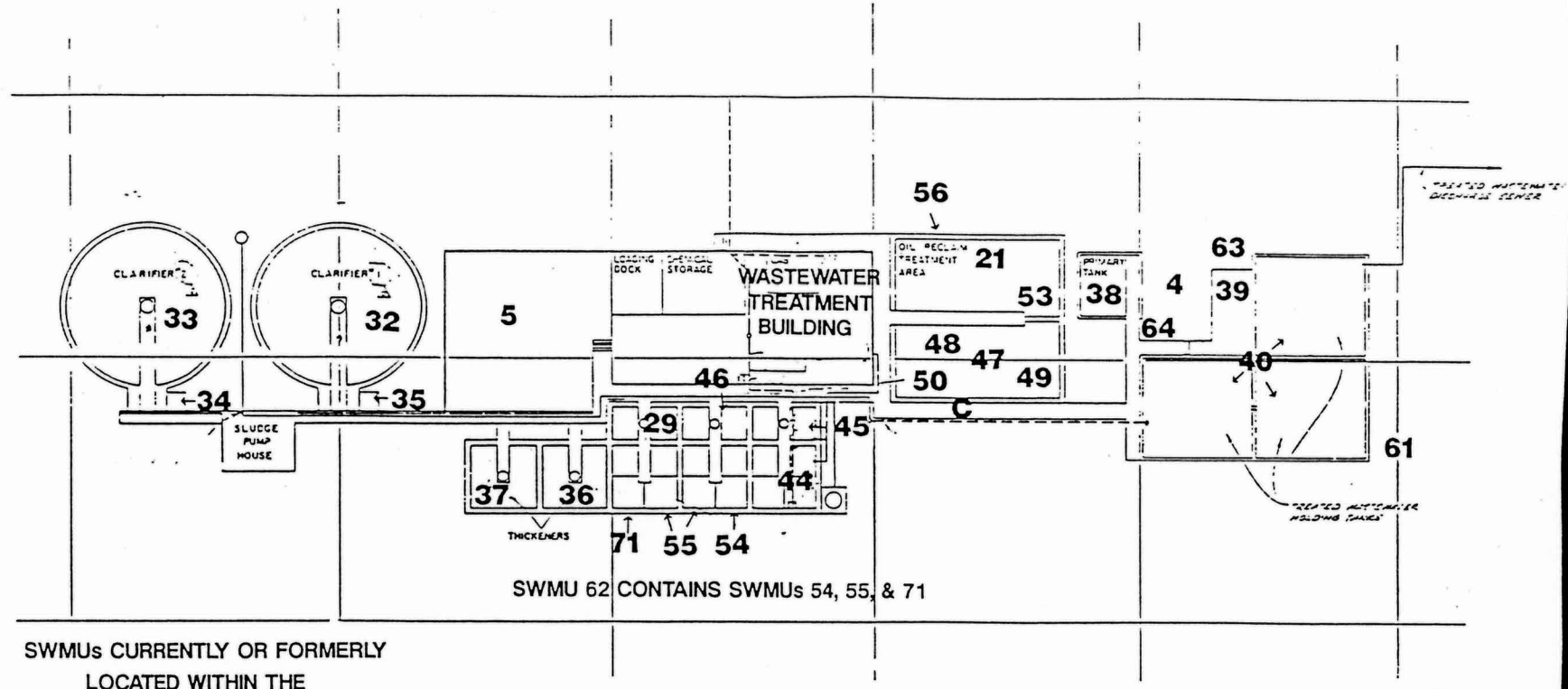


FIGURE I-1
SWMU LOCATION MAP



SWMU 62 CONTAINS SWMUs 54, 55, & 71

SWMUs CURRENTLY OR FORMERLY LOCATED WITHIN THE WASTEWATER TREATMENT BUILDING

22, 23, 24, 25, 26, 27
42, 43, 51, 52, 57, 58, 59, 60

SCALE
1" = 50'

FIGURE I-2
SWMU LOCATION MAP
WASTEWATER TREATMENT PLANT

II. ENVIRONMENTAL SETTING

Location and Surrounding Land Use

GMC Fisher guide is located on the northern edge of Syracuse at 1000 Town Line Road, Town of Salina, Onondaga County, New York (see Figure II-1). The facility property encompasses 84.7 acres. The area surrounding the facility is industrial. Conrail tracks border the facility's southernmost property line. The nearest residential area is located approximately 2000 feet south of the facility property (Ref. 1 and 130). The population within five miles of the facility is 400,000 (Ref. 116).

Climate and Meteorology

Summers in the Syracuse area are warm with maximum daytime temperatures ranging from the upper seventies to the middle eighties. Winters are long and cold with occasional periods of severe weather. The coldest temperatures generally are between -5 degrees and -20 degrees fahrenheit (Ref. 131). Average annual precipitation in the Syracuse area is 39.11 inches. Precipitation is generally evenly distributed, averaging approximately 3.26 inches per month. Annual average total snowfall in Syracuse is 110.4 inches (Ref. 132). Average annual wind speed in Syracuse is 9.7 miles per hour (mph) (Ref. 131).

Topography, Surface Drainage, and Soils

The GMC Fisher Guide facility lies within the Erie-Ontario Lowlands Physiographic Province of New York State. This area is characterized by relatively low, flat topography. The Erie-Ontario Lowlands lie between Lake Ontario to the north, and the Appalachian Uplands to the south of Syracuse. Locally, the topography at the site shows little relief (Ref. 118). Elevations at the site range from 375 to 400 feet above mean sea level (msl) (Ref. 130).

Surface drainage at the site is to the northeast, towards Ley Creek. Ley Creek is located approximately 200 feet north of GMC's northernmost property line (Ref. 130). It drains approximately 30 square miles (Ref. 118). The creek flows west approximately 3-1/2 miles where it discharges into Onondaga Lake (Ref. 130). According to GMC representatives, Onondaga Lake

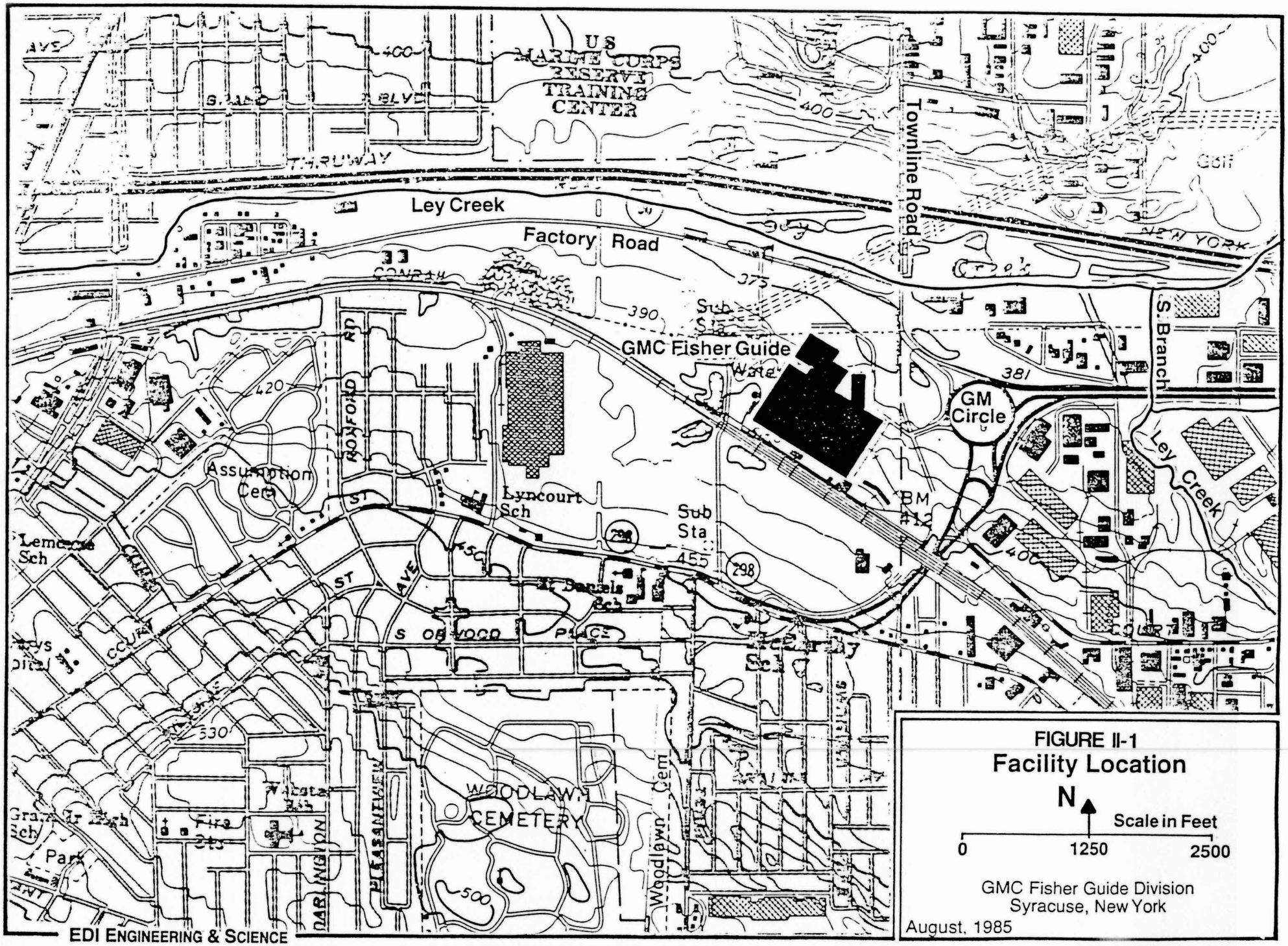


FIGURE II-1

Facility Location

N

Scale in Feet

0 1250 2500

GMC Fisher Guide Division
Syracuse, New York
August, 1985

REFERENCE 118

is classified as Class D, meaning that the lake has a fishing/health advisory and is not suitable for use. Contamination in Onondaga Lake has several potential sources since other creeks also discharge into the lake (Ref. 1 and 130).

According to GMC's SWMU response (Ref. 116), 100 percent of the facility is within the 100-year floodplain (Ref. 1).

Nearly all of the parent materials of the soils found in Onondaga County were deposited either directly or indirectly through glaciation. Only the recent alluvium of the floodplains is postglacial (Ref. 131).

The Soil Survey of Onondaga County, New York (Ref. 131), defines the soils underlying the GMC Fisher Guide property as urban land, meaning that the land is too developed or altered to allow identification of soils. The soils surrounding the GMC property are of the Niagara and Minoa Associations. The Niagara series are poorly drained, medium textured soils that are medium to high in lime content. These soils formed in relatively stone-free lacustrine deposits of silt, very fine sand, and moderate amounts of clay. They occur on moderately low lake plains from which runoff is slow or from which runoff is received from higher lying soils. The Minoa series consist of somewhat poorly drained, moderately coarse textured soils that formed in lacustrine or eolian deposits of fine sand and very fine sand. These soils occur at intermediate levels on the lake plains (Ref. 131).

The soils which occur at the GMC property are derived from silts and clays deposited in glacial Lake Iroquois. The old shoreline of the former lake is to the south of the site and forms the boundary between the lacustrine deposits and glacial till deposits (Ref. 118). The soils directly north of the GMC property, along Ley Creek, are defined by the soil survey as fluvaquents, frequently flooded soils. The fluvaquents consist of recently deposited alluvial soils. The alluvial soils are predominantly silt loam or sandy loam and range from well drained to poorly drained (Ref. 131).

Soil borings collected as part of the 1985 hydrogeological investigation discussed in Chapter III, History of Releases, indicates that soils underlying GMC's property are primarily composed of silts and fine sands with some clay. Deep borings show silt or fine sand embedded with course sands and gravel at depths ranging from approximately 25 to 35 feet.

The soil borings indicate that the thickness of the lacustrine deposits increase to the northeast of the site. The lacustrine deposits are approximately 5 feet thick in the southwest corner of the property, 19 feet thick in the southeast corner, 20 feet thick in the northwest corner, and 25 feet thick in the northeast corner. The lacustrine deposits are overlain with approximately two to ten feet of sand and gravel fill (Ref. 118).

Geology and Hydrogeology

Bedrock from which the soil material of Onondaga County derived is predominantly limestone, siltstone, and shale that formed from materials deposited at the bottom of the sea during Silurian and Devonian geologic periods. These sedimentary strata are approximately 8,000 feet thick overlying crystalline rocks. The Erie-Ontario Plain which underlies the portion of Onondaga County where the facility is located, consists of soft, less resistant shale and limestone of Silurian age. Bedrock strata occur in an east-west band and has a regional dip southward of 20 to 30 feet per mile (Ref. 131).

Bedrock underlying sediments in the area of the site are red and green shales and siltstones of the Upper Silurian Vernon Shale Formation (Ref. 118). One of the deep soil borings taken as part of the 1985 hydrogeological investigation encountered weathered red shale at a depth of 34 feet. This boring is located in the northwestern portion of the facility.

GMC installed a number of monitoring wells as part of the 1985 hydrogeological investigation. The locations of the monitoring wells are shown in Figure II-2 (Ref. 118). The shallow wells are screened in the upper ten feet of the saturated zone, placing them in the top of the lacustrine sediment or in fill material overlying the lacustrine sediments. Soil borings from the wells show that the depth to the water table ranges from 2 to 12 feet, with the most shallow depths occurring north of the facility's Manufacturing Building. The water table elevations at the site range from 374 feet msl in the northern part of the site to 393 feet above msl in the southwestern part of the site. Shallow groundwater flow is to the north-northeast, towards Ley Creek, as shown in Figure II-2. The shallow groundwater flow shows a depression north of the Manufacturing Building where storm drains cross the property. This depression suggests that the storm drains are lowering the head by draining the fill and the upper part of the lacustrine sediments. Several deep wells were installed to a depth of 24 to 41 feet. The deep groundwater flow is also to the northeast, but doesn't exhibit the depression in the area of the storm drains (see Figure II-3).

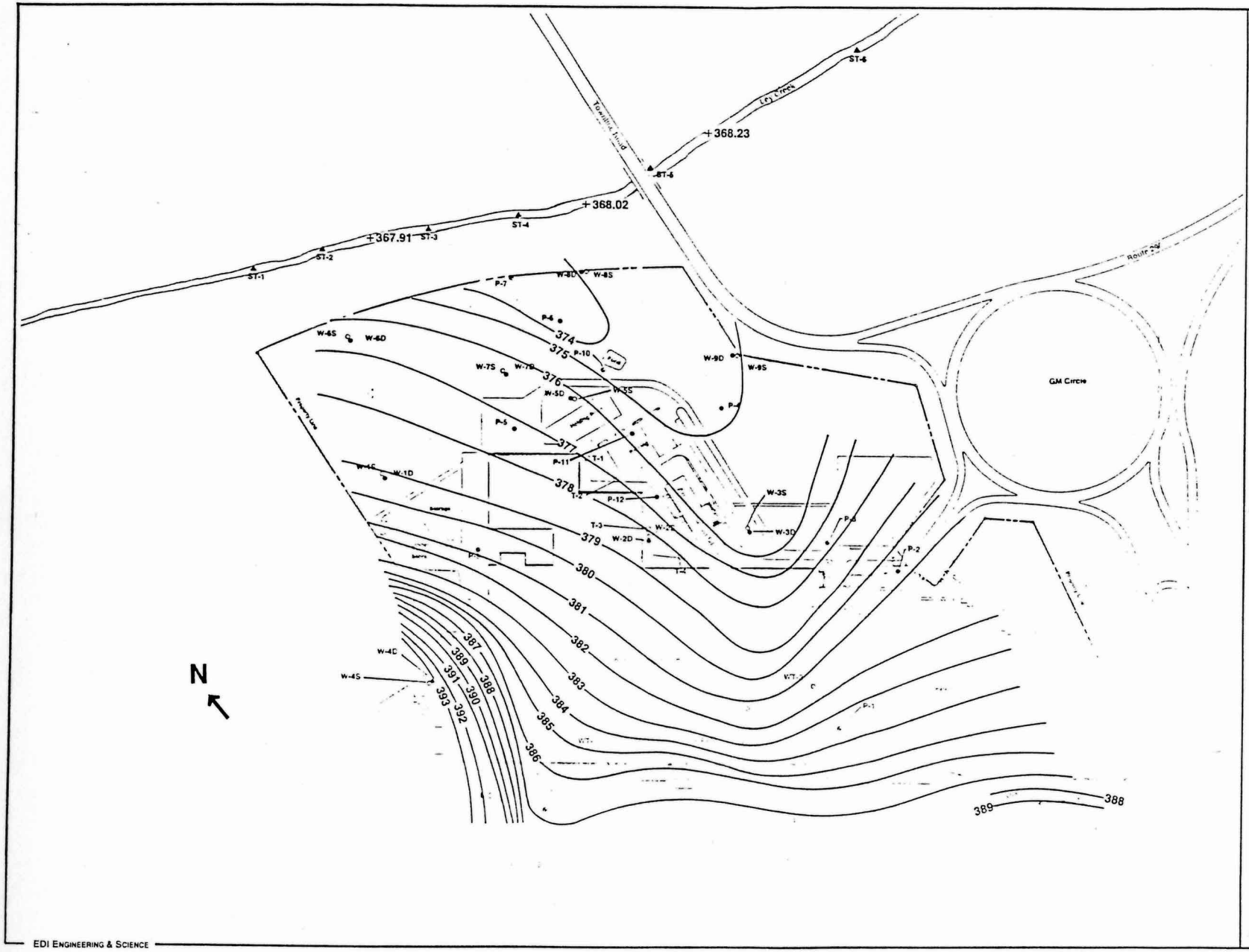


FIGURE II-2

Shallow Groundwater Elevation Map Contour Interval 1'

Legend

- WT-1 -Shallow Groundwater Well
- U-1S -Upgradient Shallow Groundwater Well
- U-1D -Upgradient Deep Groundwater Well
- P-1 -Pipeline Well

Groundwater Well Pairs

- W-1S -Shallow Well
- W-1D -Deep Well

Ley Creek Samples

- ST-1 -Grab Sample

Groundwater Excavations

- T-1 -Trench ± 10 Feet Deep

Storm Sewer Samples

- S-1 -Inflow Points

+ Surveyed Stream Elevations

379 MQSD Groundwater Elevation

All Wells Were Sampled - Only Positive Results Are Printed

GMC Fisher Guide Division
Syracuse, New York

August 1985

EDI Engineering & Science

II-5

REFERENCE 118

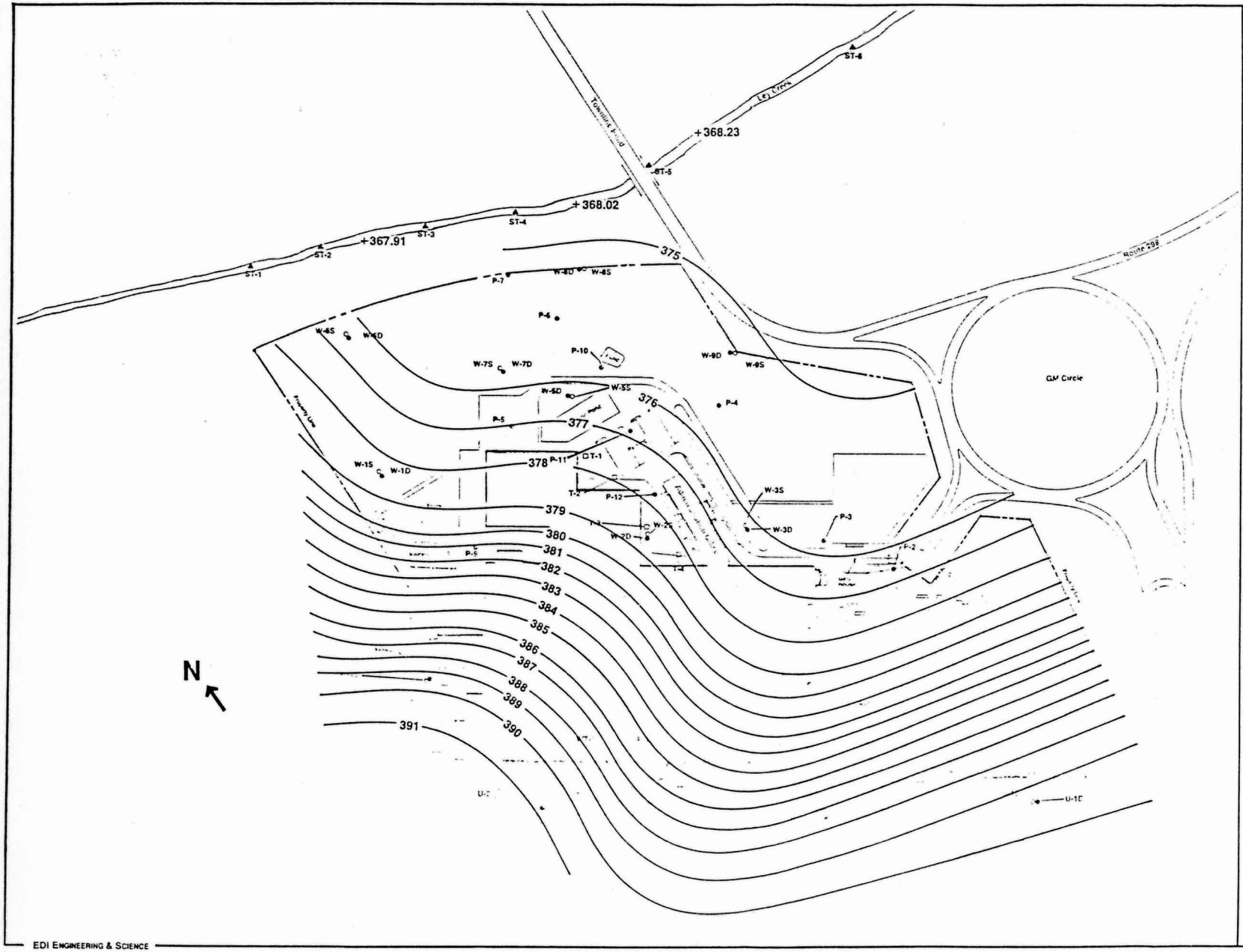


FIGURE II-3

Deep Groundwater Elevation Map Contour Interval 1'

Legend

- WT-1 -Shallow Groundwater Well
- U-1S -Upgradient Shallow Groundwater Well
- U-1D -Upgradient Deep Groundwater Well
- P-1 -Pipeline Well

Groundwater Well Pairs

- W-1S -Shallow Well
- W-1D -Deep Well

Ley Creek Samples

- ST-1 -Grab Sample

Groundwater Excavations

- T-1 -Trench ± 10 Feet Deep

Storm Sewer Samples

- S-1 -Inflow Points

+ Surveyed Stream Elevations

379 NGSD Groundwater Elevation

All Wells Were Sampled - Only Positive Results Are Printed

GMC Fisher Guide Division
Syracuse, New York

August 1985

EDI Engineering & Science

9-II

REFERENCE 118

Vertical permeabilities were measured by GMC's consultant for lacustrine samples using a triaxial test. The permeabilities ranged from 3.6 x 10^{-4} cm/sec for a sample of fine to medium sand to 8.5 x 10^{-8} cm/sec for a sample of silt and clay (Ref. 118). Vertical permeabilities were also measured for samples of glacial till using a triaxial test. The glacial till permeabilities ranged from 6.10 x 10^{-8} cm/sec to 2.5 x 10^{-8} cm/sec (Ref. 118).

Thirteen field measurements of permeabilities were taken for the deeper sand and silt lacustrine sediements using the falling head and rising head slug tests. These permeabilities ranged from a high of 4.6 x 10^{-4} cm/sec to a low of 1.5 x 10^{-5} cm/sec. All of the deep wells were field tested for permeability except for W-6D. The screen of well W-6D partially penetrates a two-foot sand and gravel layer between the lacustrine sediments and the underlying glacial till; the permeability was too high to conduct the slug test. The GMC consultant estimates that the permeability of the deep lacustrine sediments at well W-6D is 1 x 10^{-3} cm/sec. The permeability of each well is presented in Table C-1 in Attachment C.

According to the soil survey, numerous towns and villages in Onondaga County obtain water from wells or springs. Other areas obtain their water from Otisco Lake or Skaneateles Lake. The city of Syracuse obtains its water supply from Skaneateles Lake. Supplementary water is available from Onondaga County, which obtains its water through a six-foot pipeline from Lake Ontario (Ref. 1 and 131). According to GMC representatives, there are no water supply wells in the area (Ref. 1).

According to the Hydrogeological Investigation report prepared by GMC's consultant (Ref. 118), I. H. Kantrowitz of the State of New York Conservation Department, Water Resources Commission, reports that there is no major gravel aquifer within the site area. Domestic well yields from the lacustrine silts and clays are estimated at 0.1 to 0.5 gallons per minute (gpm). Domestic well yields for the shale units underlying the lacustrine deposits and glacial till are estimated by Kantrowitz to be 20 gpm, with industrial well yields as high as 240 gpm. Water quality from the shale unit is reported as generally poor, being very hard and containing excessive sulfate (Ref. 118).

III. FACILITY DESCRIPTION

General Plant Description

General Motors Corporation, Fisher Guide Division (GMC Fisher Guide), Syracuse Plant, is located in Onondaga County, New York, at 1000 Town Line Road in the town of Salina. The GMC Fisher Guide facility is situated on 84.7 acres. The plant buildings cover 874,000 square feet (Ref. 1). The GMC Fisher Guide plant was constructed in 1952 with major additions in made in 1963 and 1973-4.

Prior to the early 1970s, GMC Fisher Guide operations included plating, buffing, dye casting, and other metal forming and finishing processes. In 1973, GMC Fisher Guide removed all metal forming and finishing processes. The plant subsequently began producing plastic body and trim components manufactured by injection molding, painting, and assembly. Injection molding and painting of plastic parts result in the generation of PCB-contaminated hydraulic oils, waste solvents, and PCB-contaminated paint sludge (Ref. 1 and 111).

History of Ownership and Land Use

Prior to 1952, when GMC constructed the Syracuse Plant, the property was undeveloped swamp land. The area to the south was previously farm land (Ref. 1). Currently, the area surrounding the GMC plant is industrial. Ley Creek is located approximately 200 feet north of GMC's property. Conrail tracks border GMC's southernmost property line. The nearest residential area is located 2000 feet south of the plant (Ref. 130).

In 1952 when the plant was constructed it was known as Brown-Lipe-Chapin. In 1963, the plant name was changed to the Turnstead Division of General Motors. In 1973 or 1974, the name was changed again to the Fisher Body Division of General Motors. In 1975 the facility name was changed to its current title: Fisher Guide Division (Ref. 1).

Regulatory History

GMC Fisher Guide operates as an interim status RCRA facility. The facility submitted a Notification of Hazardous Waste Activity on August 6, 1980. The facility submitted a RCRA Part

A Permit Application on November 18, 1980. The application included process codes for Drum Storage Areas No. 1 and 2 (SWMUs 3 and 4), the Lagoon (SWMU 1), and storage and treatment tanks. The tanks listed in the 1980 Part A are all associated with the wastewater treatment plant.

The facility submitted a revised RCRA Part A Permit Application on March 1, 1982. The revised application was made as the result of the deletion of EPA hazardous waste numbers F017 and F018 and clarification on the status of wastewater treatment units. The revised application lists the two Drum Storage Areas and a treatment tank. According to GMC representatives, the tank listing on the application refers to the Kolene Unit (SWMU 6) (Ref. 1). The Kolene Unit consisted of two chambers for the cleaning of painting racks and the cleaning process produced caustic wastes (D002). The Kolene Unit was previously located inside the Manufacturing Building. The unit was removed in early 1988. No closure plan has been submitted for the Kolene Unit.

GMC has submitted a closure plan for Drum Storage Area No. 1 (SWMU 3) to the NYDEC. GMC submitted the latest responses to notice of deficiency comments on November 21, 1988 (Ref. 126). The closure plan is currently undergoing review by the NYDEC. Although the Drum Storage No. 2 (SWMU 4) is included on the current Part A Permit Application, no closure plan for this unit has been submitted. The Drum Storage Area No. 2 has not been used since 1981 (Ref. 1).

A closure plan has been submitted to the NYDEC for the Lagoon (SWMU 1) and the Holding Pond (SWMU 2) in accordance with NYDEC regulations (6 NYCRR 373). GMC has submitted responses to several sets of Notice of Deficiency comments. GMC submitted the latest set of responses to NYDEC in December 1988 (Ref. 127). NYDEC has now approved the closure plan. The closure plan currently is undergoing public comment.

GMC Fisher Guide operates under a State Pollutant Discharge Elimination System (SPDES) Discharge Permit. The SPDES Permit Number is NY-000 0566. Its effective date is November 1, 1985, and its expiration date is November 1, 1990 (Ref. 95). Formerly, the Holding Pond (SWMU 2) discharged to Outfall 001 and the Lagoon (SWMU 1) discharged to Outfall 002. Outfall 001 was located on the northwestern edge of the Holding Pond and Outfall 001 was located on the northwestern corner of the Lagoon. The discharge from Outfalls 001 and 002 converged and discharged to Outfall 003, located the on the northern boundary of the facility property. Discharge from the Lagoon and Holding Pond to the outfalls has been discontinued. Both ponds

have been inactive since December 1986.

Outfall 003 now receives runoff from newly installed storm pipes installed to collect stormwater from the roof the of Manufacturing Building. Outfall 004 receives parking lot stormwater runoff and runoff from outside of the GMC property, but the outfall is not currently listed under the SPDES permit. A new SPDES permit addressing the discharge revisions is currently under review (Ref. 1).

The permit regulates cooling water and stormwater runoff to Outfall 001, process wastes and coal pile runoff to Outfall 002, and combined discharges to Outfall 003. The discharge to Outfall 001 receives its discharge from the Temporary Holding Pond (SWMU 2), the discharge to Outfall 002 receives its discharge from the Lagoon (SWMU 1), and Outfall 003 receives discharge from Outfall 001 and Outfall 002.

GMC Fisher Guide discharges wastewater to the Onondaga County sewer system under a Onondaga County Industrial Wastewater Discharge Permit (Ref. 1 and 124). The permit authorizes the discharge of sanitary wastewater, treated wastewater from the wastewater treatment plant, and treated contaminated groundwater withdrawn from the Thinner Tanks/Xylene Spill (AOC A). The permit included as a reference for this report was issued on September 1, 1986, and expired on September 1, 1988. GMC is currently undergoing a renewal process for the permit.

GMC Fisher Guide has a Certificate to Operate an Air Contamination Source from the NYDEC Division of Air (Ref. 108). The emission points and the status of each are included in Table C-2 in Appendix C.

Operation/Process Description

The plant was built in 1952 to manufacture steel automobile parts. Plating, buffing, pressing, and dyecasting operations were performed at the facility. In the early 1960s, dyecasting, plating and some injection molding were performed at the facility. In 1973, all plating operations were discontinued and removed from the facility and the facility switched entirely to injection molding processes. Current operations at GMC include injection molding, painting, wastewater treatment, and oil reclamation. The plant produces plastic body and trim components manufactured by

injection molding, painting, and assembly. Injection molding and painting of plastic parts result in the generation of PCB-contaminated hydraulic oils, waste solvents, and PCB-contaminated paint sludge (Ref. 1 and 111).

GMC uses approximately eighty million pounds per year of plastics in their injection molding processes. The raw materials are shipped into the facility by rail and by truck. Two-thirds of this is polypropylene and acrylonitrile butadiene styrene and the other one-third is a polyurethane, polyvinyl chloride, nylons, and polyesters. All scrap materials can be reground and run through the process again unless it becomes contaminated. The raw materials are received as plastic pellets. The pellets are automatically fed by vacuum conveyors into the injection molders. Some blending of colors occurs within the injection molders. The pellets are plasticated, melted to form a liquid, and injected into the molds. The molds are allowed to cool within the molders and then are removed. Twenty to thirty percent of the parts go through the painting system at GMC. Thirty-five hundred to 4,000 parts are produced at Fisher Guide due to the wide variety of colors used.

Wastes and Waste Management Practices

The GMC Fisher Guide facility produces process wastewater, oily rubbish, PCB-contaminated oils, waste hydraulic oils, molder purgings, and waste solvents. Oily rubbish is collected in the Oil-Contaminated Rubbish Containers (SWMU 69). There are 22 two-cubic yard containers located throughout the facility. Waste from these small containers is transferred to the PCB-Contaminated Waste Dumpsters(2) that are store in the Hazardous Waste Accumulation Area (SWMU 5). The waste stored in these units typically contains less than 50 ppm PCBs, but the facility disposes the material as a hazardous waste (Ref. 1).

Waste solvents generated at GMC are placed into 55-gallon drums in the Flammable Storage Room Waste Accumulation Area (SWMU 71). These 55-gallon drums are then transferred to Drum Storage Area No. 1 to await shipment off site for disposal (Ref. 1).

Contaminated groundwater is collected in two Interceptor Trenches (SWMU 28) and pumped to the Contaminated Groundwater Tank (SWMU 29). The groundwater is contaminated with xylene, toluene, and ethylbenzene from the Thinner Tanks/Xylene Spill (Ref. 47). The contaminated groundwater is aerated in the holding tank and tested for organic content. If the analysis shows a low enough concentration of volatile organics, the wastewater is transferred to the Holding Tanks

(SWMU 40) for aeration and temporary storage with other treated wastewaters prior to discharge to the county POTW. If the volatile organic concentration is too high, the waste is transferred to the Equalization Tank 1 (SWMU 44) for treatment with oily wastewaters (Ref.1).

Purgings from the injection molders are generated when a barrel is emptied on a molder. The purgings come out of the unit as a large mass of plastic. The purgings can be reground and reused if they are not contaminated with oil or other materials. If they are contaminated with oil, the waste is added to the Oil-Contaminated Waste Dumpsters (SWMU 69); otherwise they are thrown in with the general plant garbage (Ref. 1).

Waste hydraulic fluid and waste oil contaminated with PCBs are generated at injection molders within the plant. Hydraulic fluids are released from small gaps in the casing of the molders and collects in the Oil Collection Trenches (SWMU 19) and the Oil Collection Pans (SWMU 20). The waste oil is then removed form these holding units using the Portable Pumping Units (SWMU 15). The Dirty Oil Transfer Station (SWMU 16) is used to pump the oil from the Portable Pumping units to the Dirty Oil Tanks (SWMU 21) located in the Oil Reclamation System. The waste oil in the Dirty Oil Tanks is tested daily for PCB content. If the oil contains greater than 20 ppm PCBs, the waste oil is transferred to the Waste Oil Bunkers (SWMU 54) where it is stored prior for shipment off site for incineration. If the waste oil contains less than 20 ppm PCBs, it is recovered for reuse in the Oil Reclamation System. Ninety percent of the injection molders at GMC use reclaimed oil. The other ten percent use only new oil to prevent contamination with PCBs (Ref. 1).

The Oil Reclamation System at GMC consists of a series of holding tanks, filters, and distillation units. The dirty oil is heated in the Dirty Oil Tanks to reduce the viscosity and aid in separating water from the oil. Water drawn off the waste oil is discharged to the Industrial Waste Treatment Plant Sump (SWMU 22). This waste water then is treated in the oily wastewater treatment system. The waste oil from the Dirty Oil Tanks is filtered in the Primary Dirty Oil Filter (SWMU 23) prior to distillation in the Vacuum Distillation Units (SWMU 24). Following distillation, the waste oil is filtered by the Secondary Dirty Oil Filter (SWMU 25) and discharged to the Dirty Oil Holding Tanks (SWMU 26). The waste oil goes through final filtration in the Kidney Filters (SWMU 27) and is stored in a 10,000-gallon clean oil tank. Reclaimed oil is taken from this tank as needed to replace oil lost from the injection molders (Ref. 1).

Prior to 1963, GMC did not operate a wastewater treatment plant at this facility. In 1963, a wastewater treatment system was installed to treat electroplating, buffing, and paint wastewaters. This system consisted of cyanide oxidation, chromium reduction, precipitation and settling. In 1973, the facility changed production. Electroplating and buffing operations ceased and plastic injection molding operations began. The wastewater system was modified in 1973 to treat these new waste streams. In 1985, the wastewater treatment system was modified again. This modification separated the system into two parts: oily wastewater treatment and suspended solids/pH treatment. The sludges and effluents from these systems are combined prior to discharge and disposal (Ref. 1) .

Wastewater from the Industrial Waste Treatment Plant Sump (SWMU 22), the Interceptor Sumps (SWMU 30) (also called the extruder sump), and the Industrial Waste Sump (SWMU 41) enter the oily wastewater treatment system. In addition, wastewater from the Contaminated Groundwater Tank (SWMU 29) enters this system if the organic content is too high to discharge to the county POTW. The first step in the oily wastewater treatment system is a series of three Equalization Basins (SWMUs 44, 45, and 46). Currently only one of the basins is used, but wastewater can be sent to the other basins by an overflow weir. Oil is skimmed from the surface of Equalization Basin 1 (SWMU 44) and stored in the 2,000-Gallon Waste Oil Tank (SWMU 52). This oil is then transferred to the Waste Oil Bunkers (SWMU 54) for storage prior to shipment off site for incineration. The wastewater from the Equalization Basin goes to the Coalescing Plate Separators (SWMU 47) to remove free and emulsified oil. The oil from the Coalescing Plate Separators is stored in the 5,000-Gallon Waste Oil Tank (SWMU 53) and then transferred to the Waste Oil Bunkers (SWMU 54) for storage prior to shipment off site for incineration (Ref. 1). A schematic showing the waste flow at the Wastewater Treatment Plant is presented in Figure III-1.

The effluent from the Coalescing Plate Separators goes to the Batch Tanks (SWMU 48) where polymer is added to aid in settling suspended solids. The wastewater is then sent to the Flotation/Sedimentation Tank where the settled sludge and more oil is removed. The oil removed is temporarily stored in the 5,000-Gallon Waste Oil Tank (SWMU 53) and the transferred to the Waste Oil Bunkers (SWMU 54). The sludge from this tank is pumped to the Sludge Thickener (SWMU 36). The effluent from the Flotation/Sedimentation Tank flows through the Wet Well (SWMU 50) to the Carbon Filtration Units (SWMU 51) for further removal of organic constituents. The effluent from the Carbon Filtration Units is pumped to the Holding Tanks (SWMU 40) for storage and equalization prior to discharge to the county POTW (Ref. 1).

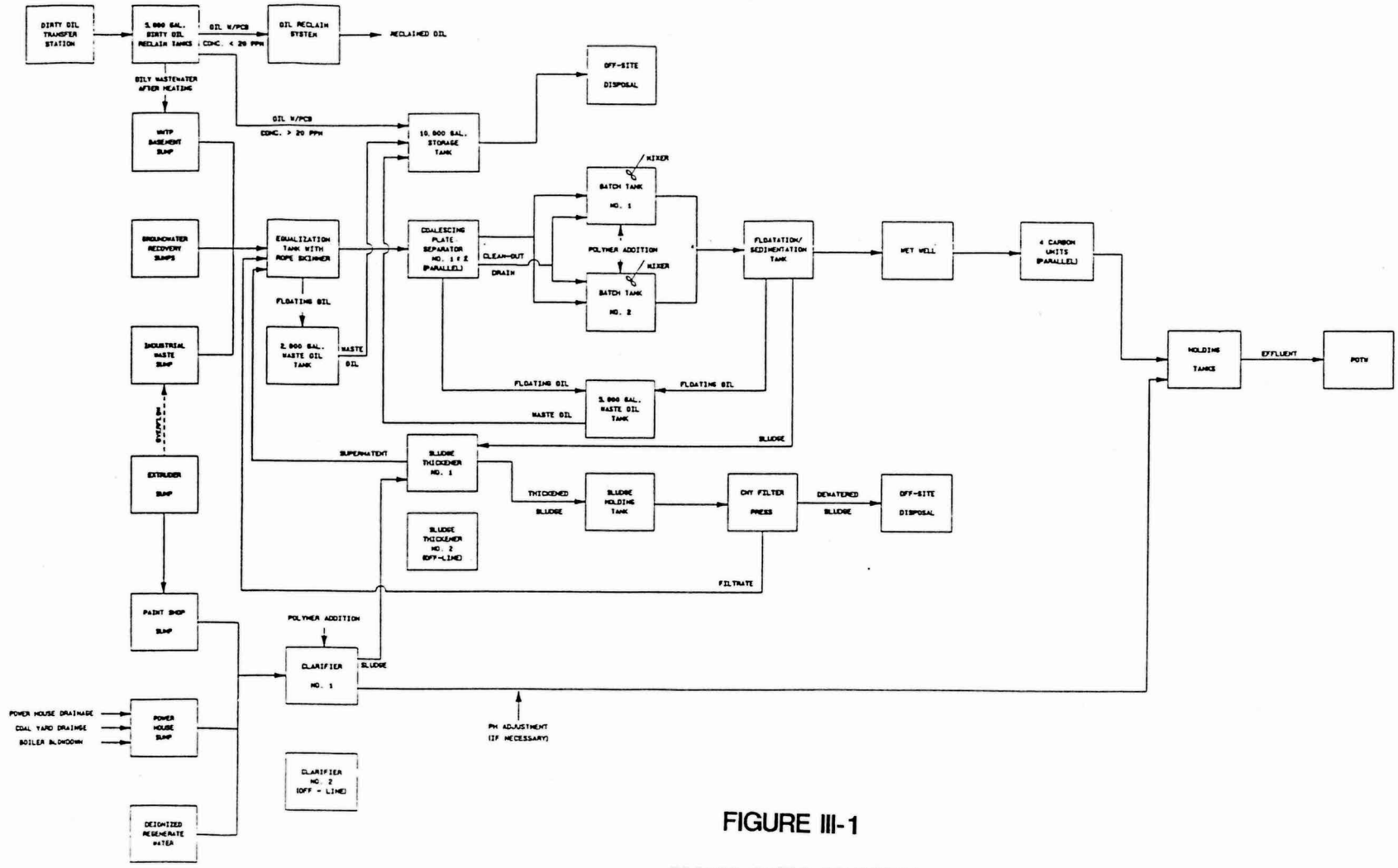


FIGURE III-1

FISHER GUIDE DIVISION
WASTEWATER TREATMENT PLANT
PROCESS SCHEMATIC
EXISTING

REFERENCE 129

The suspended solids wastewater treatment system receives wastewater from the Paint Room Sump (SWMU 31), the Interceptor Sumps (SWMU 30), the Powerhouse Wastewater Sump (SWMU 7), and deionized water regeneration (see Figure III-1). These wastewaters flow to the Clarifier (SWMU 32) where a polymer is added to aid in settling and the pH is adjusted if necessary. Sludge from the Clarifier is temporarily stored in the Sludge Sump (SWMU 34) and then pumped to the Sludge Thickener Tank (SWMU 36). The effluent from the clarifier is pumped to the Holding Tanks (SWMU 40) prior to discharge to the county POTW (Ref. 1).

The sludges from the oily wastewater treatment system and the suspended solids wastewater treatment system are combined in the Sludge Thickener Tank (SWMU 36). The supernatant from this tank is pumped back to the Equalization Basin 1 (SWMU 44) in the oily wastewater treatment system. The thickened sludge is stored in the Sludge Holding Tank (SWMU 38) prior to dewatering in the Filter Press (SWMU 39). The effluent from the Filter Press is pumped back to the Equalization Basin 1 (SWMU 44). The dewatered sludge is stored in the Sludge Dumpster (SWMU 64) prior to shipment off site for disposal at an off site landfill (Ref. 1).

The effluents from the Carbon Filtration Units (oily wastewater treatment) and the Clarifier (suspended solids wastewater treatment) are combined in the Holding Tanks (SWMU 40) for storage and equalization prior to discharge to the county POTW (Ref. 1).

History of Releases

There have been numerous reports of releases to Ley Creek from as early as 1975 (Refs. 84, 87, 90, and 91). In 1979, a NYDEC representative investigated a fish kill in Ley Creek, downstream from the GMC plant (Ref. 86). In 1980, GMC reported a discharge of oil from Outfall 002 into Ley Creek (Ref. 83). During a follow-up investigation, oil was observed being carried past two coastal booms and a loop oil skimmer and an oily sheen was evident approximately two miles downstream from GMC. The point outside the property where plant effluent enters Ley Creek (Outfall 003) formerly received discharge from Outfalls 001 and 002. The Lagoon (SWMU 1) discharged to Outfall 002 and the Holding Pond (SWMU 2) discharged to Outfall 001. As part of a NYDEC Consent Order, GMC investigated the source of oil. As a result of this investigation, the Underground Oil Reclamation Sumps (SWMU 13) were found to be leaking. According to GMC, contaminated oil leakage from the sumps was following gravel conduits along deteriorating storm

sewer lines (Old Storm Sewer System, SWMU 66), which discharged to Outfall 001 (Refs. 1 and 80).

During 1980 through 1983, GMC sealed off the inlets to the Underground Oil Reclamation Sumps and filled the sumps with a concrete/sand mixture. On October 25, 1983, a NYDEC Consent Order was issued, instructing GMC to design and construct an above-ground oil collection system (Ref. 78).

Leakage of paint thinner from an underground pipeline was discovered in early 1985 (Thinner Tanks/Xylene Spill, AOC A) (Ref. 47). The release of paint thinner solvents, consisting primarily of xylene, toluene, and ethyl benzene, most likely occurred over a period of time. An initial investigation to define the extent of contamination was performed in April 1985. The underground pipeline carried paint thinner from three underground tanks containing product paint thinner. On February 18, 1986, a NYDEC Consent Order was issued, instructing GMC to submit water quality monitoring reports from nine monitoring wells in the vicinity of the underground thinner tanks (Ref. 75). The order also instructed GMC to disconnect and cap all underground thinner lines and to initiate a program for identifying the extent of soil contamination caused by the solvent leak. GMC has now removed the tanks and has installed two Interceptor Trenches (SWMU 28) to intercept the contaminated groundwater (Ref. 1).

On October 11, 1985, a NYDEC Consent Order was issued, instructing GMC to 1) submit engineering plans for a new sewer system in order to meet all SPDES effluent limitations and 2) conduct a hydrogeologic investigation to examine the extent of PCB contamination of groundwater and soil surface on the facility's property (Ref. 78).

A hydrogeological investigation conducted by EDI Engineering and Science for GMC Fisher Guide in 1985, revealed elevated levels of PCBs in soils and groundwater on the facility's property. PCB contamination appears to be the greatest surrounding and beneath the Manufacturing Building. In addition to the PCB contamination, the groundwater sampling also revealed elevated levels of trans-1,2-dichloroethylene, trichloroethylene, vinyl chloride, toluene, 1,1-dichloroethylene, chloroform, methylene cloride, 1,1,1-trichloethane, nickel, zinc, and chromium. Analytical results from the 1985 sampling are shown in Tables III-1 and III-2 (Ref. 118).

TABLE III-1

FISHER GUIDE, SYRACUSE
GROUNDWATER QUALITY RESULTS: VOLATILE ORGANICS
(Concentrations in mg/l)

Well	Vinyl Chloride	Trichloro-ethylene	Toluene	1,1-Dichloro-ethylene	Chloroform	Methylene Chloride	Trans-1,2-Dichloro-ethylene	1,1,1-Trichloro-ethane
P1	-	-	-	-	-	-	-	-
P2	-	-	0.068	-	-	-	-	-
Duplicate	-	-	0.030	-	-	-	-	-
P3	-	-	-	-	-	-	-	-
P4	-	-	-	-	-	-	-	0.014
P5	-	0.005	-	-	-	-	0.025	-
P6	-	-	-	-	-	-	0.002	-
P7	0.016	-	-	-	-	-	0.007	-
P8	-	-	-	-	-	-	-	-
P9	-	-	-	-	-	-	-	-
P10	0.015	-	0.006	-	-	-	0.008	
Duplicate	0.013	-	0.002	-	-	-	0.005	-
P11	-	0.012	-	-	-	-	0.003	-
P12	0.014	0.002	0.015	-	-	-	0.008	-
P13	0.076	0.27	-	0.014	-	-	5.4	0.002
P14	0.052	0.12	-	-	-	0.015	8.4	0.022
Duplicate	0.038	0.54	-	-	-	-	15	0.042
W1S	-	-	-	-	-	-	-	-
W1D	-	-	-	-	-	-	0.002	-
W2S	-	0.030	-	-	-	-	0.010	-
W2D	0.35	3.0	-	0.025	0.001	-	1.3	-
W3S	0.073	78	0.032	0.010	0.006	-	-	-
Duplicate	-	-	-	-	-	-	-	-
Duplicate	0.098	50	0.051	0.016	0.007	-	1.3	-
W3D	-	-	-	-	-	-	-	-
W4S	-	-	-	-	-	-	-	-
W4D	-	0.24	-	-	-	-	0.002	0.002
W5S	0.070	-	-	-	-	-	0.023	-
W5D	-	-	-	-	-	0.047	-	-
W6S	-	-	-	-	-	-	0.008	-
W6D	0.014	-	-	-	0.007	-	-	-
W7S	-	-	-	-	-	-	-	-
W7D	-	-	0.005	-	0.006	-	-	-
W8S	-	0.001	-	-	-	-	-	-
W8D	-	-	-	-	-	-	-	-
W9S	-	-	-	-	-	-	-	-
Duplicate	-	0.001	-	-	-	-	-	-
W9D	-	-	-	-	-	-	-	-
Duplicate	-	-	-	-	-	-	-	-
WT1	-	0.13	-	-	-	0.001	0.12	-
WT3	0.025	0.60	0.012	0.002	-	-	0.18	-
U1S	-	-	-	-	-	-	-	-
U1D	-	-	-	-	-	-	-	-
U2S	-	0.003	-	-	-	-	0.002	-
Duplicate	-	0.003	-	-	-	-	0.001	-
Field Blank 2	-	-	-	-	0.004	-	-	-

REFERENCE 118

TABLE III-2

FISHER GUIDE, SYRACUSE
GROUNDWATER, LEY CREEK, AND STORM DRAIN INFLOW
WATER QUALITY RESULTS: METALS
(Concentrations in mg/l)

Well	Chromium	Zinc	Arsenic	Nickel	Copper	Selenium	Antimony	Lead
W1D	0.02	0.68	0.0086	0.21	-	-	-	-
W2D	-	0.04	-	0.08	-	-	-	-
W3D	-	0.03	-	0.15	-	-	-	-
W4D	-	0.03	-	0.05	0.02	-	-	-
W5D	-	0.06	-	0.05	-	-	-	-
W6D	-	0.02	-	0.08	-	-	-	-
W7D	-	0.05	-	0.07	0.05	-	-	0.06
W8D	-	-	-	0.09	-	-	0.10	-
W9D	-	-	0.0034	0.06	-	-	-	-
Duplicate	-	0.07	0.0054	0.06	-	-	-	-
U1D	-	0.02	0.0024	0.14	-	-	-	-
U2S	0.04	-	-	-	-	-	-	-
S1	0.02	0.12	-	-	0.04	-	0.16	0.04
S2	-	-	0.0036	-	-	0.0096	-	-
S3	0.04	0.10	-	-	-	0.0020	-	-
S4	0.05	-	-	-	-	-	-	-
Field Blank 2	0.05	-	-	-	0.09	-	-	-
W3S	-			0.09				
W6S	-			0.02				
W8S	-			0.07				
ST1	-			-				
ST2	-			-				
ST3	-			-				
ST4	-			-				
ST5	-			-				
ST6	-			-				

REFERENCE 118

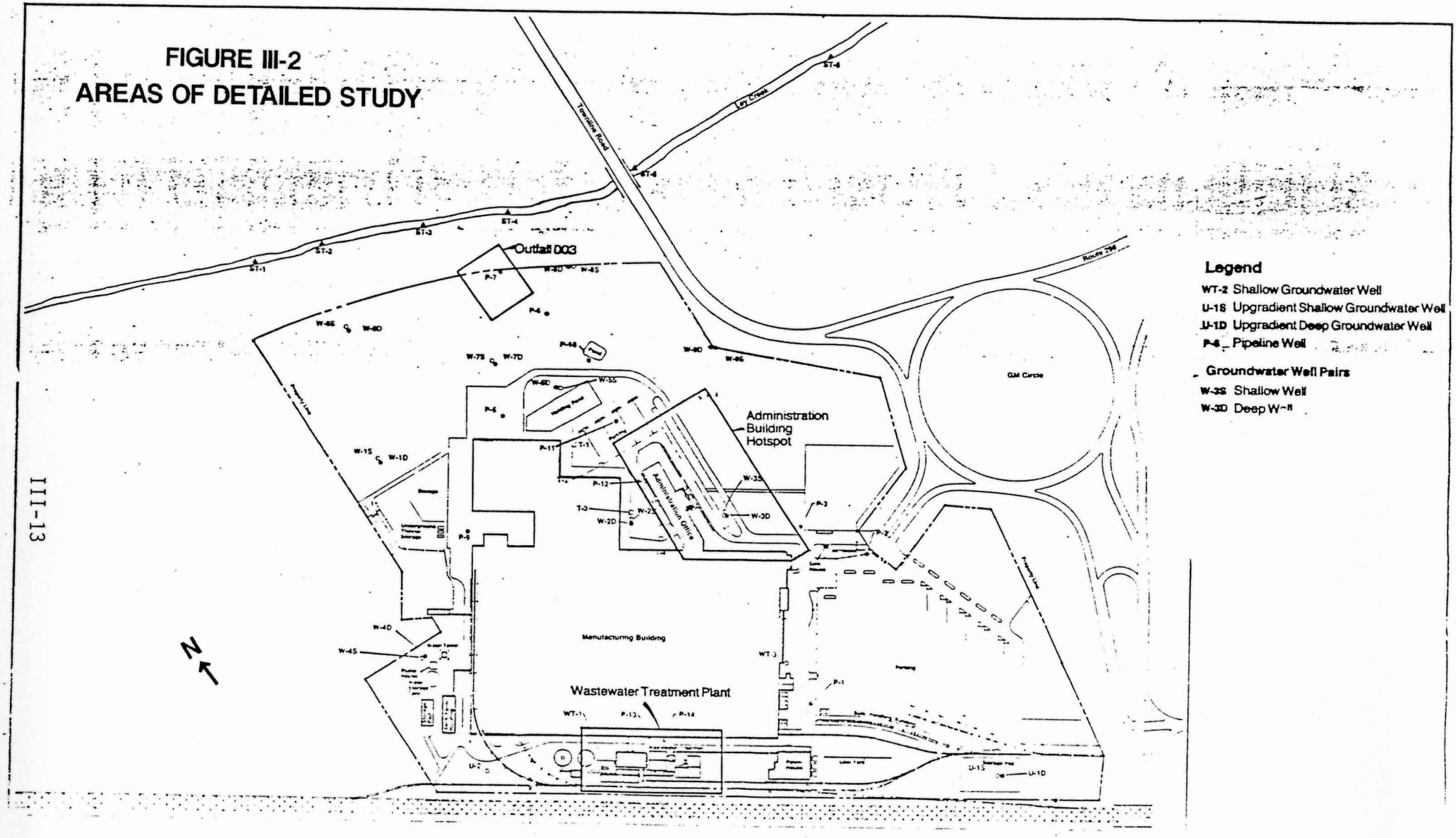
Phase II of the hydrogeological investigation began in December 1985. The Phase II investigation focused on the following three areas identified during the initial hydrogeological investigation as having the greatest potential groundwater contamination: 1) an area near the administration Building, 2) the area of Outfall 003, and 3) the area around the wastewater treatment plant (Ref. 119). These areas are shown in Figure III-2 and are summarized below:

- EDI installed eight monitoring wells in the area of the Administration Building after discovering high concentrations of priority pollutant volatile organics, particularly, trichloroethylene, in the shallow groundwater. Sampling of the wells detected trichloroethylene, trans-1,2-dichloroethylene, 1,1-dichloroethylene, and vinyl chloride. The well locations are shown in Figure II-1 in Chapter 2 and the positive analytical results are presented in Table C-2.

- Soil borings were collected in the area of Outfall 003 to determine the extent of PCB contamination of soils in this area. The top six to ten feet of soil in this area is fill material overlying gray silty clay natural soil. The soil borings were analyzed for PCBs. Aroclors 1242, 1248, and 1260 showed positive results. Aroclor 1242 concentrations ranged from 0.5 to 8000 ppm, Aroclor 1248 concentrations ranged from 1.9 to 16 ppm, and Aroclor 1260 concentrations ranged from 0.53 to 6.2 ppm. The PCB's were not concentrated in any one soil horizon. Figure C-1 in Appendix C shows the Outfall 003 area, Figure C-2 is a cross section showing the soils at Outfall 003, and Figure C-3 is a cross section showing the distribution of contamination. Table C-3 includes the positive results from the analyses. There are several possible sources of the PCBs. First, the contamination may have resulted from materials excavated from around the plant and used as fill in the 003 outfall area. Second, prior to installation of the present outfall piping, a natural drainage channel served as an outlet for the Lagoon (SWMU 1) and the Holding Pond (SWMU 2). The drainage channel is now buried and may continue to serve as a conduit of contaminated groundwater. Third, the construction of Factory Avenue, bordering the Facility's northernmost boundary, and the installation of a gas main beside the road may also have disturbed PCB-contaminated fill in the area.

- EDI installed six shallow monitoring wells in the area of the wastewater treatment plant to provide additional information on the distribution of volatile priority pollutants, oil, and PCB's. The locations of these wells are shown in Figure C-4 and positive results of the analysis are included in Table C-4. Trichloroethylene at concentrations of 2.6 ppm and 2.8 ppm were detected in wells WT-12 and WT-13 respectively, and trans-1,2,-dichloroethylene at

FIGURE III-2
AREAS OF DETAILED STUDY



concentrations of 6.8 ppm, 5.4 ppm, and 8.4 pm were detected in wells WT-14, P-13, and P-14. Substantial concentrations of oil and grease were detected in soil samples at all of the wells. The highest oil and grease levels were detected in wells WT-10 and WT-11. The analyses for oil and grease are presented in Table C-5.

Sampling of Ley creek sediments and bank soils during June 1985 revealed total PCB concentrations up to 34 ppm at various points along the creek bank up to 3000 feet downstream of the plant's discharge point. The highest level, 34 ppm, was detected 500 feet below the plant. Stream sediments had detectable, but lower levels of PCBs. PCBs were detected at levels up to 0.42 ppm upstream of the facility. The results of this sampling led to sampling of a dredge spoil pile placed along the south bank parallel to Factory Avenue. Test borings indicated levels to 466 ppm (Ref. 62 and 65).

In 1970 through 1975, the Onondaga County Department of Drainage and Sanitation (OCDDS) dredged Ley Creek in an effort to control seasonal flooding. During the dredging, PCB-contaminated soil was excavated and deposited in piles along the banks between Ley Creek and Factory Road. During the period of dredging operations and for a period of time thereafter, the OCDDS transported dredged material to various locations around the county for fill and top dressing in a variety of landscape restoration projects. During March 1985, approximately 280 cubic yards of the Ley creek contaminated dredge spoils were deposited as fill in the Meadowbrook/Hookway area on Meadowbrook Drive in Syracuse, New York. The Meadowbrook area is in close proximity to a residential area and is adjacent to a recreational playing field believed to be owned by Syracuse University. Sampling of the Meadowbrook area conducted in May 1987 by the OCDDS established that PCB's existed in the soils in the range of 0.1 parts per million (ppm) to 40 ppm (Ref. 15). Under New York State Hazardous Waste Regulations, PCB's are considered to be a hazardous waste at 50 ppm. GMC has received approval from NYDEC on October 11, 1988, to dispose of the PCB-contaminated Meadowbrook soil in the Lagoon (SWMU 1) (Ref. 36). After GMC excavates contaminated soils from the Lagoon, they plan to backfill the Lagoon with the PCB-contaminated Meadowbrook soil.

In addition, the following releases or spills are reported in the file materials:

- GMC discovered oil around one of the Underground Oil Reclamation Sumps (SWMU 13) on August 28, 1985. The sump had previously been abandoned. GMC vacuumed up the oil and

transferred it to the wastewater treatment plant for analysis and disposal (Refs. 1 and 76).

- GMC reported a process water spill on March 6, 1986. Approximately 1,000 gallons of process water was discharged from the Primary Holding Tank at the Wastewater Treatment Plant due to a sump overflow. The water discharged to a storm sewer which, at that time, discharged to Holding Pond (SWMU 2) (Ref. 73).

- GMC reported a possible hydraulic oil release of unknown quantity on April 17, 1986. At the time of the release, a 4,000-gallon inactive underground oil storage tank was being removed. After the tank had been removed, oily soil was uncovered at the excavation site. GMC installed an oil recovery well (Ref. 72). During the VSI, GMC representatives stated that this tank was contained in the sump around which oil was discovered on August 28, 1985 (Ref. 1).

- GMC reported to NYDEC that a release to the storm sewer occurred on April 14, 1987. Approximately 200 gallons of groundwater contaminated with xylene were released to the storm sewer (New Storm Sewer System, SWMU 68). The release occurred while contractors were excavating an Interceptor Trench (SWMU 28), which was being constructed as part of the remedial cleanup of the Thinner Tanks/Xylene Spill (AOC A). GMC reported that they took immediate action to pump the groundwater to a tanker. GMC installed booms and pads in the ditch leading from outfall 003 to prevent contaminants from entering Ley Creek (Refs. 67 and 68).

- A spill of 1,400 gallons of 20° baume hydrochloric acid occurred in the basement of the Waste Treatment Plant at approximately 9:30 p.m. on June 9, 1987. The release occurred for three hours during which an estimated total of 35 pounds of hydrochloric acid was released to the air (Ref. 58).

- An indeterminable amount of treated process water was released to a storm sewer due to an electrical malfunction in the Industrial Waste Treatment Plant control panel on June 11, 1987. The storm sewer discharged to Ley Creek. In a letter to NYDEC, GMC reported that they were in the process of purchasing and installing air operated diaphragm pumps as back-up units (Ref. 56, 57, and 60).

- GMC reported to NYDEC a possible hydraulic oil release to Outfall 003. The release occurred

on April 9, 1987, when a small amount of free oil was noted on the water leading from Outfall 003. GMC placed oil absorbent booms and pads on the water surface to prevent oil from entering Ley Creek. The source of the release was under investigation at the time of the reported release (Ref. 67).

IV. DESCRIPTION OF SOLID WASTE MANAGEMENT UNITS AND OTHER AREAS OF CONCERN

SOLID WASTE MANAGEMENT UNITS:

Unit Number: 1

Unit Name: Lagoon (Photographs 1.1 through 1.4)

Location: The Lagoon is located northeast of the Manufacturing Building.

Description: This unit is an earthen impoundment constructed in lacustrine deposits of silt and fine sand. The Lagoon was originally designed with a capacity of 1,080,000 gallons and measured 360 feet by 100 feet and 4 feet deep. In 1974, the Manufacturing Building was extended and the Lagoon size was decreased to approximately 354,000 gallons (Ref. 111). The former southwestern boundary of the lagoon extends under a portion of the Manufacturing Building extension. The current dimensions of the Lagoon are 235 feet by 75 feet.

The Lagoon was constructed in 1963 as a final settling pond for wastewater from the Waste Treatment Plant and stormwater drainage from the west side of the plant. It was designed to retain fluids for removal of coarse solids and to retain free oils. The treated influent to the Lagoon included wastewaters from copper, nickel, and chrome plating operations and wastewaters from various painting and plastics forming operations (Ref. 43).

The effluent from the Lagoon discharged to Ley Creek via Outfall 002. The discharge was regulated by the Plant's State Pollutant Discharge Elimination System (SPDES) permit (70-83-0139). Numerous surface water discharges have been found to be substantially in violation of effluent limitations set by the facility's SPDES permits (Ref. 88).

Waste has not been discharged into the Lagoon since December 1, 1986. The discharge to the outfall has been sealed off. GMC intends to close the Lagoon under a RCRA closure plan. A closure plan for the Lagoon and the Holding Pond (SWMU 2) has been approved by the New York Department of Environmental Conservation (NYDEC) and currently is undergoing public comment (Ref. 1). As discussed in the History of Releases section of Chapter III, GMC intends to excavate the Lagoon and backfill it with the PCB-contaminated soils from the Meadowbrook site. GMC has received approval from the NYDEC to use the Meadowbrook soils.

The Lagoon encompasses a surface area of approximately one-half acre and contains 1,250 cubic yards of sediment and 325 cubic yards of contaminated soil. Analytical results included with the Lagoon and Holding Pond closure plan indicate that sludge in the Lagoon contains an average concentration of 200 to 300 ppm of PCBs. The highest metal concentrations in the Lagoon sediments were chromium (22 to 3,800 mg/kg), iron (4,700 to 15,000 mg/kg), magnesium (1,300 to 11,000 mg/kg), and zinc (91 to 12,000 mg/kg). Trace amounts of phenols, cyanide, toluene, 1,2-trans-dichloroethylene, xylene, 1,1,1-trichloroethane, and trichloroethylene were detected in sediment samples from the Lagoon (Ref. 43).

Date of Start-Up:

The Lagoon was constructed in 1963.

Date of Closure:

The Lagoon has been inactive since December 1, 1986, and is to be closed under an approved closure plan.

Waste Managed:

The treated influent to the Lagoon included wastewaters from copper, nickel, and chrome plating operations and wastewaters from various painting and plastics molding operations.

Wastewaters held in the Lagoon contain 1,1,1-trichloroethane, xylene, Grow chemical thinner, Grow solvent 1631, freon, methylene chloride, trichloroethylene, Nalclean 8900, and PCBs (Aroclor 1242 and 1248) (Ref. 95).

Release Controls:

The Lagoon was equipped with two floating booms, an underflow weir, an oil skimmer, and an imbiber bead filter box to contain and remove any residual oil floating on the surface. The underflow weir design was inadequate in heavy rains. The weir did not have enough above-board surface and allowed water to flow over the top (Ref. 80).

History of Releases:

In 1985, a GMC consultant conducted groundwater sampling to investigate the extent of contamination resulting from the Thinner Tank/Xylene Spill (AOC A). Wells sampled downgradient from the Lagoon detected elevated concentrations of trans-1,2-dichloroethylene, vinyl chloride, toluene, methylene chloride, nickel, zinc, lead, and copper (Ref. 118). The source of this contamination has not been specifically attributed to the Lagoon.

In February of 1984, elevated levels of trichloroethylene and toluene were observed from samples taken from Outfall 002. In December of the same year, NYDEC sampling indicated elevated levels of xylene. The facility also was cited for unpermitted discharges of trans-1,2-dichloroethylene and trichloroethylene (Ref. 97).

In 1980, a discharge of oil was reported from Outfall 002. At the time of inspection, an oily sheen was visible some two miles

downstream of the outfall. Oil was observed being carried past two coastal booms and a loop oil skimmer. Old expended absorbent material also was observed at the outflow culvert at the end of the Lagoon.

The Lagoon system was designed for solids retention and not for oil removal. Although most of the oil used in the plant is recycled, some was lost into a floor drain system which entered the Lagoon collection system. A number of oil separator systems have been used; however, they were not successful in removing the oil because oil contaminated solids carried the oil through the separators into the Lagoon and eventually into Ley Creek (Ref. 83).

Oil is assumed to have entered the Lagoon from two sources. The first was a line running from the wastewater treatment plant to the Lagoon. The storm water lines and area drainage along the roadway system was tied directly into this line. The second was an overflow from the Industrial Waste Sump (SWMU 41). Oil entering the sump with paint processing waste floats to the top. Pump malfunction caused an overflow condition which allowed the oil to discharge to the Lagoon. The oil was trapped behind the floating booms for skimmer removal (Ref. 80).

Unit Number: 2

Unit Name: Holding Pond (Photographs 2.1 through 2.3)

Location: The Holding Pond is located approximately 50 feet northeast of the Lagoon (SWMU 1), northeast of the Manufacturing Building.

Description: This unit is an earthen impoundment constructed in lacustrine deposits of silt and fine sand and has a single synthetic containment liner. The pond encompasses a surface area of approximately 2,600 square feet. The pond dimensions are approximately 50 feet by 60 feet (Ref. 43).

In May 1980, GMC constructed the Holding Pond on its Outfall 001 line in order to investigate the discharge of oil from the Lagoon (SWMU 1). The pond was used to determine the source of oil and to collect any oil contained in the storm sewer lines before it was discharged to Ley Creek (Ref. 111).

The effluent from the pond was formerly discharged to Ley Creek via Outfall 001. Outfall 001 received parking lot drainage, general area drainage, building roof leader drainage, overflow from the Powerhouse Wastewater Sump (SWMU 7), and air conditioning non-contact cooling water (Ref. 115). The discharge was regulated by GMC's State Pollutant Discharge Elimination System (SPDES) permit (70-83-0139). Numerous surface water discharges have been found to be substantially in violation of effluent limitations prescribed by the facility's SPDES permits (Ref. 88).

Waste has not been discharged into the pond since December 1, 1986. The discharge to the outfall has been sealed off. GMC intends to close the pond under a RCRA closure plan. A closure plan for the Lagoon (SWMU 1) and the Holding Pond has been approved by the NYDEC and currently is undergoing public comment (Ref. 1).

The pond was equipped with an oil skimmer, an underflow weir, and an imbiber bead filter box to contain and remove any residual oil floating on the surface. The pond was installed on a temporary basis and was not sized appropriately for the flows which were directed to it. The undersizing of the pond has allowed some oil to by-pass the underflow weir (Ref. 111).

The pond contains approximately 250 cubic yards of sediment and 60 cubic yards of contaminated soil. Analytical results included with the Lagoon and Holding Pond closure plan indicate that sludge in the pond contains an average PCB concentration of less than 17 ppm. With the exception of mercury, total metals concentrations were 10 to 100 times greater in the Lagoon

sediment than in the Holding Pond. The highest metal concentrations in the Lagoon sediments were chromium (22 to 3,800 mg/kg), iron (4,700 to 15,000 mg/kg), magnesium (1,300 to 11,000 mg/kg), and zinc (91 to 12,000 mg/kg). Trace amounts of phenols, cyanide, toluene, 1,2-trans-dichloroethylene, xylene, 1,1,1-trichloroethane, and trichloroethylene were detected in sediment samples from the Holding Pond and the Lagoon (Ref. 43).

Date of Start-Up: The unit was constructed in May 1980.

Date of Closure: The pond has been inactive since December 1, 1986, and is to be closed under an approved closure plan.

Waste Managed: Waste managed included parking lot drainage, general area drainage, building roof leader drainage, overflow from the Powerhouse Wastewater Sump (SWMU 7), and air conditioning non-contact cooling water (Ref. 115). The pond also received oily discharge from the Lagoon (SWMU 1) and the Old Storm Sewer System (SWMU 65). Treated influent to the Lagoon included wastewaters from copper, nickel, and chrome plating operations and wastewaters from various painting and plastics molding operations. Wastewaters entering Holding Pond via the Lagoon (SWMU 1) contained 1,1,1-trichloroethane, xylene, Grow chemical thinner, Grow solvent 1631, freon, methylene chloride, trichloroethylene, Nalclean 8900, and PCBs (Aroclor 1242 and 1248) (Ref. 95).

Release Controls: The pond has a single synthetic containment liner (Ref. 1). The pond was equipped with an oil skimmer, an underflow weir, and an imbiber bead filter box to contain and remove any residual oil floating on the surface. The pond was installed on temporary basis and was not sized appropriately for the flows which were directed to it. The undersizing of the pond has allowed some oil to by-pass the underflow weir (Ref. 111).

History of Releases: In 1985, a GMC consultant conducted groundwater sampling to investigate the extent of contamination resulting from the Thinner Tank/Xylene Spill (AOC A). Wells sampled downgradient from the Holding Pond detected elevated concentrations of trans-1,2-dichloroethylene, vinyl chloride, and nickel (Ref. 118). The source of this contamination has not been specifically attributed to the Holding Pond.

Analytical results indicate that sludge in the pond contains an average PCB concentration of less than 17 ppm. In February of 1984, elevated levels of trichloroethylene and toluene were observed from samples taken from Outfall 001. Numerous surface water discharges have been found to be substantially in violation of effluent limitations prescribed by the facility's SPDES permit (Ref. 88).

Unit Number:	3
Unit Name:	Drum Storage Area No. 1 (Photographs 3.1 through 3.4)
Location:	The Drum Storage Area No. 1 is located adjacent to the Manufacturing Building on the southwest corner (Ref. 1).
Description:	The Drum Storage Area is an asphalt pad, measuring 120 feet by 50 feet. In 1986, the facility proposed to close this unit and submitted a closure plan to NYDEC. According to the 1986 closure plan, the Drum Storage Area contained 12,000 gallons of waste paints and solvents (Ref. 20). All wastes are to be placed in containers and manifested for disposal at a licensed hazardous waste facility. Following the removal of the wastes, the area is to be decontaminated. The floor, trenches, curbs, steel mesh cribs, walls, and other exposed surfaces in the storage area are to be steam-cleaned or high-suction vacuumed (Ref. 20). During the VSI, GMC representatives indicated that the latest version of the closure plan, with responses to notice of deficiency comments, was submitted to the NYDEC during the fall of 1988 and currently is undergoing review by the NYDEC (Ref. 1). At the time of the VSI, the drum storage area contained drums labeled flammable, paint thinner, xylene, dichlorobenzene, and oil. The storage area contained approximately 200 empty drums and approximately 70 drums containing waste materials. The asphalt pad was in poor condition and had numerous cracks and holes. Concrete patching was evident in some areas. Soil staining was observed along the western edge of the pad. Spillage was observed on wood pallets holding drums containing xylene.
Date of Start-Up:	The unit began operation in 1974.
Date of Closure:	This unit is currently active. GMC intends to close this unit upon approval of the RCRA closure plan currently undergoing review of the NYDEC.
Waste Managed:	Drum Storage Area No. 1 stores waste paint and solvents. In 1983 it was reported that several of the drums containing paint sludge had PCB concentrations above 50 ppm and in some cases above 500 parts ppm (Ref. 20).
Release Controls:	The drum storage area is an uncurbed asphalt pad. There are no other release controls.
History of Releases:	No releases are reported in the available file material. During the VSI, the asphalt pad was observed to be in poor condition and had numerous cracks and holes. Concrete patching was evident in some areas. Soil staining was observed along the western edge of

the pad. Spillage was observed on wood pallets holding drums containing xylene.

Unit Number:	4
Unit Name:	Drum Storage Area No. 2 (Photographs 4.1 and 4.2)
Location:	Drum Storage Area No. 2 is located on the south side of the Manufacturing Building, just east of the Wastewater Treatment Plant (Ref. 1).
Description:	Drum Storage Area No. 2 operated from 1964 to 1981 and was used to store waste 1,1,1-trichloroethane, trichloroethylene, paint solvents and grease. A total of 10 to 15 drums were stored in the area at any one time. The storage area is no longer used for the storage of hazardous wastes. Currently, part of the area contains the a shed which stores the Filter Press (SWMU 39) (shown in Photographs 4.1 and 39.1). The remaining area is used as a driveway (Ref. 1). The storage pad measured 30 by 30 feet and was constructed of concrete. The pad slopes toward a sump located at its south side, which collected runoff or any spillage from the pad area. This sump is currently used as the Filter Press Sump (SWMU 64, Photograph 64.1). A six-inch concrete curb borders the pad on the south side. The sump currently discharges to Equalization Tank 1 (SWMU 44) located in the Wastewater Treatment System (Ref. 1). Drum Storage Area No. 2 is listed on the most recent RCRA Part A Permit Application (March 1, 1982, Ref. 2). Although the unit is no longer used, no closure plan has been submitted (Ref. 1). During the VSI, oil stains were observed around the sump, the concrete curb, and the soil behind the curb. The concrete pad appeared to be in good condition.
Date of Start-Up:	This unit began operating in 1964.
Date of Closure:	This unit has been inactive since 1981.
Waste Managed:	Drums of waste 1,1,1-trichloroethane, trichloroethylene, paint solvents, and grease were stored in this area.
Release Controls:	Drum Storage Area No. 2 is a concrete pad, which slopes toward a sump located at the south side of the pad. The south side of the pad has a six-inch concrete curb.
History of Releases:	No releases were reported in the available file information. During the VSI, oil stains were observed around the sump, the concrete curb, and the soil behind the curb.

Unit Number:	5
Unit Name:	Hazardous Waste Accumulation Area (Photographs 5.1 through 5.4)
Location:	The Hazardous Waste Accumulation Area is located south of the Manufacturing Building, adjacent to the wastewater treatment plant.
Description:	The Hazardous Waste Accumulation Area is located within an enclosed metal corrugated building with a concrete floor. Any spills would drain to a concrete trench in the center of the area. This trench slopes and drains toward a sump located on the east side of the building. The sump is emptied with a manual pump. At the time of the VSI, there was approximately two to four inches of liquid in the sump. The building measures approximately 60 feet by 60 feet. The Hazardous Waste Accumulation Area was designed for the storage waste solvent in 55-gallon drums, replacing Drum Storage Area No. 1 (SWMU 3); however, the area has never been used for drum storage and GMC has now decided to not store waste solvents at this location. Instead, waste solvents will be stored in the Emulsifier Bunkers (SWMU 72) (Ref. 1). Currently, GMC stores two 20-cubic yard roll-off boxes containing PCB-contaminated debris, such as cardboard, plastics or anything that comes in contact with hydraulic oil containing low level PCBs in the Hazardous Waste Accumulation Area. According to GMC representatives, the concentration of PCBs in this waste is less than 50 ppm. The waste materials are disposed off site in a secure landfill (Ref. 1).
Date of Start-Up:	This unit began operating in 1986.
Date of Closure:	This unit is currently active.
Waste Managed:	The area is used for the storage of PCB-contaminated debris and PCB-contaminated paint sludge.
Release Controls:	The unit is a secure, completely enclosed metal corrugated building with a concrete floor. A concrete center trench and sump collect any spillage. The building is equipped with fire protection equipment.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	6
Unit Name:	Kolene Unit (Photograph 6.1)
Location:	The Kolene Unit was formerly located inside the Manufacturing Building.
Description:	The Kolene Unit was a hot salt bath used as a paint stripping unit. The unit consisted of a double tank. One side was a potassium hydroxide and sodium hydroxide bath and the other was a rinse tank. Concentrated sludge was removed every two or three days and transferred to the Filter Press (SWMU 39) prior to transport to an off-site secure landfill. Wastewater was discharged to the wastewater treatment plant for treatment. The Kolene Unit was contained by a concrete floor and a nine-inch concrete curb.
Date of Start-Up:	This unit began operation in 1973.
Date of Closure:	The unit was taken out of service in 1987 and removed in early 1988.
Waste Managed:	This unit cleaned paint racks and stored caustic sludges.
Release Controls:	The unit was contained by a concrete floor and nine-inch concrete curbs.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number: 7

Unit Name: Powerhouse Wastewater Sump (Photographs 7.1 through 7.3)

Location: The sump is located adjacent to the Powerhouse which is located on the southeastern corner of the Manufacturing Building (Refs. 1 and 2).

Description: The Powerhouse Wastewater Sump is a concrete in-ground unit, located inside a small concrete shed.

The Powerhouse Wastewater Sump collects drainage from the Powerhouse process drains, the coal unloading and storage drainage area, and the ash handling drainage area. Two sump pumps pump the wastewater from the sump at a rate of 600 to 700 gallons per minute to overhead piping which discharges to the suspended solids portion of the Wastewater Treatment Plant (Clarifier, SWMU 32). The sump has a capacity of 9,450 gallons. The sump is equipped with two inlet pipes--one discharges from the coal pile drainage and the second discharges from the process drains and ash handling area (Ref. 1).

At the time of the reported oil discharge to the Holding Pond, the Powerhouse Wastewater Sump was believed to be the source of the problem. Overflow was previously discharged directly to the Old Storm Sewer System (SWMU 66) which emptied to the Holding Pond (SWMU 2). The wastewater sump was found to be overflowing due to pump failure (Ref. 114). The facility hired an outside engineering consultant to design a new pumping system to correct deficiencies in the current system. The sump was found to contain a large amount of fly ash and coal dust which had plugged the check valve assembly. In addition, the pumps as originally designed, did not have enough capacity to pump normal flows during moderate rains or thaws, thus causing overflow conditions. Currently, overflow is discharged to the New Stormwater Sewer System (SWMU 68). A baffle was installed in 1988 to collect free oils (Refs. 1, 114, and 115).

During the VSI, the sump contained wastewater and had a freeboard of approximately six feet.

Date of Start-Up: The Powerhouse Wastewater Sump was constructed in approximately 1985-86.

Date of Closure: This unit is currently active.

Waste Managed: Wastewaters managed include blowdown waters from boilers, feedwater systems, and recirculating water systems, ash handling system flush waters, coal pile drainage, general area drainage around the Powerhouse, area drainage between the Powerhouse and the Wastewater Treatment Plant, roof leaders at the

Powerhouse, floor drains in the Powerhouse, and foundation footer drain tile (Ref. 114). Facility representatives indicate that the waste stream is very acidic and high in suspended solids.

Release Controls: The sump is inside a concrete shed and is equipped with an overflow alarm. No integrity testing of the sump has been conducted.

History of Releases: The line containing the coal pile drainage to the Powerhouse Wastewater Sump was previously used as the overflow piping in the event of pump failure. Any excess water was overflowed directly to the Old Storm Sewer System (SWMU 66) which emptied into the Holding Pond (SWMU 2) (Ref. 114). In 1980, discharge of oily-wastewater was determined to have come from the Powerhouse wastewater sump.

Unit Number:	8
Unit Name:	Ash Silo (Photograph 8.1)
Location:	The Ash Silo is located on the south side of the Powerhouse.
Description:	The Ash Silo is used to store ash from the Ash Pits (SWMU 11) prior to disposal. The ash silo is elevated approximately 30 feet above the ground and has a capacity of 100 tons of ash. The unit is constructed of brick. Ash from the Ash Pits enters the unit near the top under vacuum. Ash is discharged from the bottom of the unit.
Date of Start-Up:	The Ash Silo was constructed in 1952.
Date of Closure:	The unit is currently active.
Waste Managed:	The Ash Silo stores coal ash from the Powerhouse boilers prior to disposal off site. Coal ash typically contains low concentrations of heavy metals. An analysis of the ash was not available for this report.
Release Controls:	The Ash Silo is a completely enclosed unit, elevated approximately 30 feet above ground.
History of Releases:	No releases were reported in the available file material. No evidence of release was observed during the VSI.

Unit Number:	9
Unit Name:	Ash Scrubber (No Photograph)
Location:	The Ash Scrubber is located in the Powerhouse.
Description:	The Ash Scrubber is a wet scrubber used to remove dust from flue gas leaving the Powerhouse boilers. Wastewater from this unit is directed to the Powerhouse Wastewater Sump (SWMU 7)
Date of Start-Up:	This unit began operating in 1952.
Date of Closure:	This unit is currently active.
Waste Managed:	This unit removes dust from the boiler fluegas.
Release Controls:	This unit is used to control releases of coal ash dust to the air and is a completely enclosed unit.
History of Releases:	No releases were reported in the available file material. No evidence of release was observed during the VSI.

Unit Number:	10
Unit Name:	Ash Baghouse (Photograph 10.1)
Location:	The Ash Baghouse is located over the Ash Silo (SWMU 8).
Description:	The Ash Baghouse collects dust from the air used to transport the ash to the Ash Silo (SWMU 8) and is used to prevent release of dust to the atmosphere. The Ash Baghouse removes any coal dust entrained in the air prior to discharge from the ash silo.
Date of Start-Up:	This unit began operating in 1952.
Date of Closure:	This unit is currently active.
Waste Managed:	This unit treats ash dust.
Release Controls:	This unit is used to control releases of coal ash dust to the air. The unit is completely enclosed .
History of Releases:	No releases were reported in the available file material. No evidence of release was observed during the VSI.

Unit Number:	11
Unit Name:	Ash Pits (Photographs 11.1 and 11.2)
Location:	The Ash Pits are located inside the Powerhouse Building.
Description:	The Ash Pits collect ash from the Powerhouse boilers. Ash from the boilers is collected in the Ash Pits prior to being transported by vacuum to the Ash Silo (SWMU 8). Each Ash Pit is constructed of metal and has a metal cover. The dimensions of the Pits are approximately two feet by two feet by two feet deep.
Date of Start-Up:	The Ash Pits began operating in 1952.
Date of Closure:	This unit is currently active.
Waste Managed:	This unit manages boiler ash.
Release Controls:	The units are constructed of metal and some have metal covers.
History of Releases:	No releases were reported in the available file material. No evidence of release was observed during the VSI.

Unit Number:	12
Unit Name:	Coal Elevator Sump (Photographs 12.1 and 12.2)
Location:	The Coal Elevator Sump is located in the basement of the Powerhouse Building.
Description:	The Coal Elevator Sump is constructed of concrete and is two feet in diameter and approximately three feet deep. The sump collects coal pile runoff from the coal yard. Effluent from the sump is pumped to the Powerhouse Wastewater Sump (SWMU 7) via two-inch diameter PVC piping, most of which runs above ground. No integrity testing of the sump is conducted.
Date of Start-Up:	The sump was constructed in 1952.
Date of Closure:	The sump is currently active.
Waste Managed:	The sump collects drainage from the coal yard.
Release Controls:	The sump is constructed of concrete.
History of Releases:	No releases were reported in the available file material. No evidence of release was observed during the VSI.

Unit Number:	13
Unit Name:	Underground Oil Reclamation Sumps (13) (Photograph 13.1)
Location:	The Underground Oil Reclamation Sumps are located throughout the Manufacturing Building.
Description:	GMC formerly had an underground oil collection system which was used to collect oil for reprocessing and re-use in injection molder hydraulic systems. Each molder is contained within a trenched area and any oil leakage is collected in the underlying trench. Up until the early 1980's the oil from the trench was discharged to the reclamation sumps (Ref. 1 and 80). The waste oil was conveyed from the sumps to the Dirty Oil Tanks (SWMU 21) in the wastewater treatment plant for treatment and recycling back to the molders. As a result of a Consent Agreement, GMC agreed to investigate the source of PCB-contaminated oil being discharged to the Holding Pond (SWMU 2). This investigation detected leakage from approximately 65 to 70 percent of the sumps. Between 1980 and 1983, GMC filled the sumps with a concrete/sand mixture and sealed off the inlets to the sumps. Currently, waste oil from the trenches is removed using the Portable Pumping Units (SWMU 15) and is conveyed via above-ground pipes to the oil reclamation system (Ref. 1). The sumps, on the average, measured approximately four feet in diameter and were approximately seven feet deep and had capacities of 700 to 800 gallons.
Date of Start-Up:	The sumps were installed from 1972 to 1975 (Ref. 1).
Date of Closure:	The sumps were filled with a concrete/sand mixture and sealed from 1980 to 1983 (Ref. 1).
Waste Managed:	The sumps stored PCB-contaminated waste hydraulic oil.
Release Controls:	The sumps are constructed of concrete.
History of Releases:	Leakage from several underground oil reclamation sumps was identified during an investigation of the oil reclamation system. The releases from the sumps were identified as one of the major sources of oil discharge to the Holding Pond (SWMU 2).

Unit Number:	14
Unit Name:	Underground Oil Storage Tanks (5) (No Photograph)
Location:	The Underground Oil Storage Tanks are located throughout the Manufacturing Building.
Description:	The Underground Oil Storage Tanks were used to store hydraulic oil drained from molders while the molders were undergoing repairs. The oil was transported to the tanks by truck. The oil was stored in the tanks until the repairs were completed and then was pumped back into the molder. Each tank had a capacity of 2,000 to 3,000 gallons. GMC tested the tanks for leakage during the same time that they tested the Underground Oil Reclamation Sumps (SWMU 13). The tests indicated that the tanks were not leaking. The storage tanks were filled with a cement/sand mixture and sealed between 1980 and 1983. Some of the tanks were decontaminated prior to closure (Ref. 1 and 113).
Date of Start-Up:	The tanks were installed from 1972 to 1975.
Date of Closure:	The tanks were filled with a cement/sand mixture and sealed between 1980 and 1983 (Ref. 1).
Waste Managed:	The tanks stored PCB-contaminated hydraulic oils.
Release Controls:	The tanks are enclosed underground storage tanks constructed of concrete and steel. The integrity of the tanks was tested prior to filling and sealing and no tanks were found to be leaking.
History of Releases:	No releases were reported in the available file material. No evidence of release was observed during the VSI.

Unit Number:	15
Unit Name:	Portable Pumping Units (5) (Photograph 15.1)
Location:	The Portable Pumping Units are located inside the Manufacturing Building.
Description:	The facility uses five Portable Pumping Units to remove PCB-contaminated oil from the Oil Collection Trenches (SWMU 19) and Oil Collection Pans (SWMU 20) underlying the molder machines. The contaminated oil is transferred from the pumping units to the Dirty Oil Tanks (SWMU 21) via the Dirty Oil Transfer Station (SWMU 16) and overhead piping.
Date of Start-Up:	The facility began using the Portable Pumping Units in 1980.
Date of Closure:	This unit is currently active.
Waste Managed:	This unit manages PCB-contaminated oil.
Release Controls:	This unit is operated indoors. Any spills or leaks from the Portable Pumping Units would be contained within the Manufacturing Building.
History of Releases:	No releases were reported in the available file material. No evidence of release was observed during the VSI.

Unit Number:	16
Unit Name:	Dirty Oil Transfer Station (Photograph 16.1)
Location:	The Dirty Oil Transfer Station is located inside the Manufacturing Building.
Description:	The Dirty Oil Transfer Station is used for pumping PCB-contaminated oil from the Portable Pumping Units (SWMU 15) to the Dirty Oil Tanks (SWMU 21). Beneath the transfer station valves are two shallow metal pans to collect drips. During the VSI, there was extensive oil spillage on the floor beneath the valving and around the metal pans.
Date of Start-Up:	The Dirty Oil Transfer Station was installed in 1976 or 1977.
Date of Closure:	This unit is currently active.
Waste Managed:	This unit manages PCB-contaminated oil.
Release Controls:	The unit is located inside a building and over a concrete floor.
History of Releases:	During the VSI, extensive spillage was evident on the floor beneath the transfer station valving.

Unit Number:	17
Unit Name:	Oil Reclaim Sump 518 Molder (Photograph 17.1)
Location:	The Oil Reclaim Sump 518 Molder is located inside the Manufacturing Building.
Description:	The Oil Reclaim Sump consists of an excavation that was constructed in 1985 after the facility discovered oily soil beneath the Manufacturing Building floor while sinking piling during construction activities. The facility excavated the area beneath the building floor where the oily soil was discovered and installed a standpipe to gain access to the underlying soil. Oil which occurs in the surrounding soils pools in the excavated area. The excavation is unlined. The Portable Pumping Units (SWMU 15) are used to pump oil from the excavation as needed. Approximately 100 gallons of oil has been pumped from this unit since it was installed. Facility representatives stated that no oil had been removed from this unit recently (Ref. 1).
Date of Start-Up:	The unit was installed in 1985.
Date of Closure:	The unit is currently active.
Waste Managed:	The sump contains PCB-contaminated oil.
Release Controls:	There are no release controls.
History of Releases:	This unit was formed as the result of leakage of PCB-contaminated oils beneath the Manufacturing Building. The sump, with the associated standpipe, provides a pooling area for removal of the oil.

Unit Number:	18
Unit Name:	Oil Reclaim Sump 701 Molders (Photograph 18.1)
Location:	The Oil Reclaim Sump 701 Molder is located inside the Manufacturing Building
Description:	The Oil Reclaim Sump consists of an excavation that was constructed in December 1988 after the facility discovered oily soil beneath the Manufacturing Building floor while sinking piling during construction activities. The facility excavated the area beneath the building floor where the oily soil was discovered and installed a standpipe to gain access to the underlying soil. Oil which occurs in the surrounding soils pools in the excavated area. The excavation is unlined. The Portable Pumping Units (SWMU 15) will be used to pump oil from the excavation as needed. Some soil contaminated with oil was removed when this unit was installed. Facility representatives stated that no oil has been removed since the installation of the unit (Ref. 1).
Date of Start-Up:	December 1988
Date of Closure:	The unit is currently active.
Waste Managed:	The sump contains PCB-contaminated oil.
Release Controls:	There are no release controls.
History of Releases:	This unit was formed as the result of leakage of PCB-contaminated oils beneath the Manufacturing Building. The sump, with the associated standpipe, provides a pooling area for removal of the oil.

Unit Number:	19
Unit Name:	Oil Collection Trenches (Photograph 19.1)
Location:	The Oil Collection Trenches are located inside the Manufacturing Building.
Description:	GMC has 136 injection molding machines located inside their Manufacturing Building. Most of the molders have an Oil Collection Trench surrounding the molder. The more recently installed molders have an Oil Collection Pan (SWMU 20) placed beneath it. The Oil Collection Trenches collect drippings from the molders. The trenches were constructed by forming a trench into the concrete foundation beneath the molders and installing a three-inch high metal plate around the molder periphery. The trenches are pumped out regularly with the Portable Pumping Units (SWMU 15). No integrity testing of the trenches is conducted (Ref. 1 and 113).
Date of Start-Up:	The first trenches were installed in 1973 when GMC began injection molding operations. The start-up dates of individual trenches vary according to when the molders were installed.
Date of Closure:	The trenches are currently active.
Waste Managed:	The trenches collect PCB-contaminated and non PCB-contaminated hydraulic oil that leaks from the molders.
Release Controls:	The trenches are constructed of concrete and located indoors.
History of Releases:	No releases are reported in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	20
Unit Name:	Oil Collection Pans (Photograph 20.1)
Location:	The Oil Collection Pans are located inside the Manufacturing Building.
Description:	GMC has 136 injection molding machines located inside their Manufacturing Building. Most of the molders have an Oil Collection Trench (SWMU 19) underneath the molder. The more recently installed molders have an Oil Collection Pan placed beneath them. The Oil Collection Pans are metal pans used to collect drippings from the molders. The pans are pumped out regularly with the Portable Pumping Units (SWMU 15) (Ref. 1).
Date of Start-Up:	The first collection pans were installed in 1980. The start-up dates of individual Collection Pans varies with the installation of individual molders.
Date of Closure:	The pans are currently in use.
Waste Managed:	The pans collect PCB-contaminated and non PCB-contaminated hydraulic oil.
Release Controls:	The pans are located indoors and are placed on a concrete floor.
History of Releases:	No releases are reported in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	21
Unit Name:	Dirty Oil Tanks (2) (Photograph 21.1)
Location:	The Dirty Oil Tanks are located outside under a roofed area on the east side of the Wastewater Treatment Plant Building.
Description:	The Dirty Oil Tanks are part of the Oil Reclamation System located at the Wastewater Treatment Plant and consist of two cylindrical steel tanks. Both tanks are located inside a 120,000-gallon concrete inground containment tank. The tanks are placed horizontally on cradles over the concrete floor of the containment tank. Both tanks are fully enclosed. The concrete containment tank was formerly the Former Cyanide Tank No. 1 (SWMU 56). The Dirty Oil Tanks receive PCB-contaminated oil from the Dirty Oil Transfer Station (SWMU 16). The contaminated oil is heated to 140 degrees Fahrenheit in order to reduce the viscosity and remove water. Water removed from the oil is discharged to the Industrial Waste Treatment Plant Sump (SWMU 22) and oil is discharged to the Primary Dirty Oil Filter (SWMU 23). The oil in the Dirty Oil Tanks is sampled daily to determine the PCB content of the oil. If the waste oil contains greater than 20 ppm PCBs, the waste oil is discharged to the Waste Oil Bunkers (SWMU 54) instead of undergoing treatment in the Oil Reclamation System.
Date of Start-Up:	The Dirty Oil Tanks were installed in 1973 or 1974. The roof was placed over the Wastewater Treatment Plant tanks in 1985 (Ref. 1).
Date of Closure:	The tanks are currently active.
Waste managed:	The tanks store PCB-contaminated oil.
Release Controls:	The tanks are placed on cradles within a concrete containment tank.
History of Releases:	No releases are reported in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	22
Unit Name:	Industrial Waste Treatment Plant (IWTP) Sump (Photograph 22.1)
Location:	The IWTP Sump is located in the basement of the Wastewater Treatment Plant
Description:	The IWTP Sump is a concrete inground sump. The sump is approximately 4 feet by 4 feet with an unknown depth. This sump collects wastewater removed from PCB-contaminated oil in the Dirty Oil Tanks (SWMU 21), any spillage from the oil reclamation area, and waste oil generated during filter changes or other maintenance activities. Wastes collected in the IWTP Sump are discharged to the Equalization Tank 1 (SWMU 44) at the beginning of the oily wastewater treatment system. During the VSI, extensive spillage was present on the floor around the sump. No integrity testing of this sump has been conducted.
Date of Start-Up:	This sump was installed in 1963.
Date of Closure:	The sump is currently active.
Waste Managed:	The sump collects PCB-contaminated oily wastewater and spills from the basement of the Wastewater Treatment Plant.
Release Controls:	The sump is located in the basement of the Wastewater Treatment Plant.
History of Releases:	No releases were reported in the available file information. During the VSI, extensive oil spillage was present on the floor surrounding the sump.

Unit Number:	23
Unit Name:	Primary Dirty Oil Filter (Photograph 23.1)
Location:	The Primary Dirty Oil Filter is located in the basement of the Wastewater Treatment Plant.
Description:	The Primary Dirty Oil Filter is a steel above-ground enclosed tank. Its dimensions are approximately five feet high by one and one-half feet in diameter. This unit filters PCB-contaminated oil received from the Dirty Oil Tanks (SWMU 21). The Primary Dirty Oil Filter discharges to the Vacuum Distillation Units (SWMU 24). The Primary Dirty Oil Filter has a 6 μm nominal filter to remove entrained solid particulates.
Date of Start-Up:	1985
Date of Closure:	This unit is currently active.
Waste Managed:	This unit treats PCB-contaminated oil.
Release Controls:	The unit is an enclosed tank located on a concrete floor in the basement of the Wastewater Treatment Plant.
History of Releases:	No releases are reported in the available file materials. Oil was noted on the floor around the base of this unit at the time of the VSI.

Unit Number:	24
Unit Name:	Vacuum Distillation Units (2) (Photograph 24.1)
Location:	The Vacuum Distillation Units are located in the basement of the Wastewater Treatment Plant.
Description:	The Vacuum Distillation Units are above-ground steel enclosed tanks. The units dimensions are approximately three feet high by one and one-half feet in diameter. The Vacuum Distillation Units treat filtered PCB-contaminated oil received from the Primary Dirty Oil Filter (SWMU 24). A vacuum of 25 inches of mercury is created and the contaminated oil is heated in order to reduce the viscosity and remove any remaining water. One distillation unit is operated at a time, while the other serves as a back-up unit. Each unit can process approximately 80 gallons of waste oil per hour. Removed wastewater is discharged to the Industrial Waste Treatment Plant Sump (SWMU 22). Contaminated oil is discharged to the Secondary Dirty Oil Filter (Ref. 1).
Date of Start-Up:	The distillation units were installed in 1984 or 85 (Ref. 1).
Date of Closure:	The distillation units are currently active.
Waste Managed:	These units treat PCB-contaminated oil.
Release Controls:	The units are enclosed tanks located on a concrete floor in the basement of the Wastewater Treatment Plant.
History of Releases:	No releases are reported in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	25
Unit Name:	Secondary Dirty Oil Filter (Photograph 25.1)
Location:	The Secondary Dirty Oil Filter is located in the basement of the Wastewater Treatment Plant.
Description:	The Secondary Dirty Oil Filter is a steel above-ground enclosed tank. Its dimensions are approximately five feet high by one and one-half feet in diameter. This unit filters PCB-contaminated oil received from the Vacuum Distillation Units (SWMU 24). The Secondary Dirty Oil Filter discharges to the Dirty Oil Holding Tanks (SWMU 26). The Secondary Dirty Oil Filters has a 2 µm nominal filter to remove solids entrained in the waste oil.
Date of Start-Up:	1985
Date of Closure:	The unit is currently active.
Waste Managed:	This unit treats PCB-contaminated oil.
Release Controls:	The unit is an enclosed tank located on a concrete floor in the basement of the Wastewater Treatment Plant.
History of Releases:	No releases are reported in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	26
Unit Name:	Dirty Oil Holding Tanks (Photograph 26.1)
Location:	The Dirty Oil Holding Tanks are located in the basement of the Wastewater Treatment Plant.
Description:	The Dirty Oil Holding Tanks are two above-ground covered steel tanks. The capacity of each tank is 500 gallons. The Dirty Oil Holding Tanks receive PCB-contaminated oil from the Secondary Dirty Oil Filter (SWMU 25). From the tanks, the oil is forced through the Kidney Filters (SWMU 27).
Date of Start-Up:	1975
Date of Closure:	The tanks are currently active.
Waste Managed:	The tanks manage PCB-contaminated oil.
Release Controls:	The tanks are located on a concrete floor in the basement of the Wastewater Treatment Plant.
History of Releases:	No releases are reported in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	27
Unit Name:	Kidney Filters (Photograph 27.1)
Location:	The Kidney Filters are located in the basement of the Wastewater Treatment Plant.
Description:	The Kidney Filters are two steel enclosed tanks, measuring approximately nine inches in diameter by four feet high. The Kidney Filter are five µm absolute filters. The Kidney Filters receive PCB-contaminated oil from the Dirty Oil Holding Tanks (SWMU 26) for final filtering before the oil is sent back to the injection molders in the Manufacturing Building for re-use. The treated oil is discharged to a 10,000-gallon clean oil tank.
Date of Start-Up:	1985
Date of Closure:	The filters are currently active.
Waste Managed:	The Kidney Filters are the final treatment process for PCB-contaminated oils.
Release Controls:	The filters are located on a concrete floor in the basement of the Wastewater Treatment Plant.
History of Releases:	No releases are reported in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	28
Unit Name:	Interceptor Trenches (Photograph 28.1)
Location:	The Interceptor Trenches are located on the west side of the Manufacturing Building.
Description:	The Interceptor Trenches were installed in 1986 for the purpose of collecting groundwater contaminated from the Thinner Tanks/Xylene Spill (AOC A). The trenches are located beneath a paved parking area and are accessible through manhole covers. The trenches are approximately 15 to 18 feet deep. The trenches are constructed perpendicular to groundwater flow and are backfilled with gravel in order to provide a conduit for groundwater flow. Groundwater collected in the trenches is pumped to the Contaminated Groundwater Tank (SWMU 29) (Ref. 1). The trenches were installed as part of the February 7, 1986 New York State Department of Environmental Conservation Consent Order (Ref. 75).
Date of Start-Up:	1986
Date of Closure:	The trenches are currently active.
Waste Managed:	The trenches collect groundwater contaminated with xylene, toluene, ethyl benzene, and other organic solvents (Ref. 1).
Release Controls:	The trenches are unlined and because the trenches are more permeable than the surrounding soils, contaminated groundwater flows into the trenches.
History of Releases:	No releases are reported in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	29
Unit Name:	Contaminated Groundwater Tank (Photograph 29.1)
Location:	The Contaminated Groundwater Tank is located outside of the Wastewater Treatment Plant on the southwest side.
Description:	The Contaminated Groundwater Tank is a concrete inground open-topped unit. The tank has a capacity of 28,000 gallons (Ref. 1, 89, and 92). This tank collects contaminated groundwater pumped from the two Interceptor Trenches (SWMU 28) (Ref. 1). The groundwater is contaminated with xylene, toluene, and ethyl benzene from the Thinner Tanks/Xylene Spill (Ref. 47). The contaminated groundwater is aerated in this tank and tested for organic content. If the analysis shows a low enough concentration of volatile organics, the wastewater is transferred to the Holding Tanks (SWMU 40) for temporary storage with other treated wastewaters prior to discharge to the county POTW. If the volatile organic concentration is too high, the waste is transferred to the Equalization Tank 1 (SWMU 44) for treatment with oily wastewaters (Ref. 1).
Date of Start-Up:	1986
Date of Closure:	This tank is currently active.
Waste Managed:	This tank treats groundwater contaminated with xylene, toluene, ethyl benzene, and other organic solvents (Ref. 1).
Release Controls:	The tank is constructed of concrete.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	30
Unit Name:	Interceptor Sumps (6) (Photograph 30.1)
Location:	The Interceptor Sumps are located outside the plant in various locations.
Description:	The Interceptor Sumps are concrete, fully enclosed, inground sumps. Spillage from the manufacturing area and PCB-contaminated groundwater collected by the Old Storm Sewer System (SWMU 65) are discharged to the Interceptor Sumps. Wastes collected in the sumps are pumped via overhead lines to the Equalization Tank 1 (SWMU 44) (Ref. 1).
Date of Start-Up:	The sumps were installed in 1985 and 86 (Ref. 1).
Date of Closure:	The sumps are currently active.
Waste Managed:	The sumps collect PCB-contaminated spillage and groundwater.
Release Controls:	The sumps are constructed of concrete.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	31
Unit Name:	Paint Room Sump (Photograph 31.1)
Location:	The Paint Room Sump is located outside of the paint room inside the Manufacturing Building.
Description:	The Paint Room Sump is a concrete inground sump. The sump is covered with a metal, hinged plate. The sump collects wastewater from paint room spray booths and discharges to the Clarifier (SWMU 32) at the Wastewater Treatment Plant (Ref. 1 and 129).
Date of Start-Up:	The sump was installed in 1986 (Ref. 1).
Date of Closure:	The sump is currently active.
Waste Managed:	The sump collects contaminated cooling water, paint booth washes, and paint sludge. .
Release Controls:	The sump is constructed of concrete.
History of Releases:	No releases are reported in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	32
Unit Name:	Clarifier (Photograph 32.1)
Location:	The Clarifier is located outside, on the northwest side of the Wastewater Treatment Plant Building.
Description:	The Clarifier is one of two Clarifiers located at the Wastewater Treatment Plant. The other Clarifier (Inactive Clarifier, SWMU 33) is empty of all waste and currently is in reserve (Ref. 1). The Clarifier is 60 feet in diameter and has a 230,000-gallon capacity. The Clarifier is an inground, concrete tank. The Clarifier previously received neutralized, blended wastewaters from the Acid-Alkali Tanks (SWMU 62). During flow through the Clarifiers, solids settled to the bottom and were discharged to the Sludge Sumps (SWMUs 34 and 35). The clarified supernatant overflowed into the Old Storm Sewer System (SWMU 66) which conveyed the effluent through the Lagoon (SWMU 1) for settling of suspended particles prior to discharge to Ley Creek (Ref. 89). In the 1970s, plating operations were discontinued at GMC Fisher Guide and plastic molding, painting, and assembly operations were initiated. The Clarifier was decontaminated in 1985 and no longer receives PCB-contaminated wastes. The wastewater treatment system has now been retrofitted from a plating waste treatment system to a paint solids removal and oil separation system (Ref. 1 and 89). Currently, the Clarifier receives wastewater from the Paint Room via the Paint Room Sump (SWMU 31) and coal yard runoff from the Powerhouse Wastewater Sump (SWMU 7) (Ref. 1). Solids which settle to the bottom of the Clarifier are withdrawn into the Sludge Sump (SWMU 34). Clarified supernatant is discharged to Holding Tank 1 (SWMU 40) after pH adjustment, if necessary (Ref. 1).
Date of Start-Up:	The Clarifier was constructed in 1963 (Ref. 1).
Date of Closure:	This unit is currently active.
Waste Managed:	The Clarifiers received acid alkali wastes until 1973, when plating operations at the plant were discontinued. With the introduction of plastic molding, the Clarifiers began receiving contaminated cooling water, paint booth washes, paint sludge, and PCB-contaminated paint sludge (NYDEC hazardous waste codes B005 and B007). Currently, the active Clarifier treats paint room wastewater and coal yard runoff (Ref. 1).
Release Controls:	This unit is constructed of concrete.

History of Releases:	No releases are reported in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	33
Unit Name:	Inactive Clarifier (Photograph 33.1)
Location:	The Inactive Clarifier is located outside, on the northwest side of the Wastewater Treatment Plant Building.
Description:	The Inactive Clarifier is one of two Clarifiers located at the Wastewater Treatment Plant. The Inactive Clarifier is empty of all waste and currently is in reserve (Ref. 1). According to GMC representatives the Inactive Clarifier has been decontaminated. The Inactive Clarifier is 60 feet in diameter and has a 230,000-gallon capacity. The Clarifier is an inground, concrete tank. The Clarifiers previously received neutralized, blended wastewaters from the Acid-Alkali Tanks (SWMU 62). During flow through the Clarifiers, solids settled to the bottom and the clarified supernatant overflowed into the Old Storm Sewer System (SWMU 66) which conveyed the effluent through the Lagoon (SWMU 1) for settlement of suspended fines prior to discharge to Ley Creek (Ref. 89). In the 1970s, plating operations were discontinued at GMC Fisher Guide and plastic molding, painting, and assembly operations were initiated. The wastewater treatment system has since been retrofitted from a plating waste treatment system to a paint solids removal and oil separation system (Ref. 89).
Date of Start-Up:	The unit was constructed in 1963 (Ref. 1).
Date of Closure:	The unit was decontaminated in 1985 and has been inactive since that time.
Waste Managed:	The Clarifiers received acid alkali wastes until 1973, when plating operations at the plant were discontinued. With the introduction of plastic molding, the Clarifiers began receiving contaminated cooling water, paint booth washes, paint sludge, and PCB-contaminated paint sludge (NYDEC hazardous waste codes B005 and B007).
Release Controls:	This unit is constructed of concrete.
History of Releases:	No releases are reported in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	34
Unit Name:	Sludge Sump (Photograph 34.1)
Location:	The Sludge Sump is located outside in the Wastewater Treatment Plant, adjacent to the Clarifier (SWMU 32).
Description:	The Sludge Sump is a concrete, inground unit. Solids settled to the bottom of the Clarifier are discharged to the Sludge Sump. The solids are pumped from the sump to the Sludge Thickener Tank (SWMU 36) (Ref. 1).
Date of Start-Up:	The sump was installed in 1963 (Ref. 1).
Date of Closure:	The sump is currently active.
Waste Managed:	The sump received solids from acid alkali sludges until 1973, when plating operations at the plant were discontinued. With the introduction of plastic molding, the waste stream consisted of solids settled out from contaminated cooling water, paint booth washes, paint sludge, and PCB-contaminated paint sludge (B005 and B007) (Refs. 1 and 89). Currently, the sump receives sludge settled in the Clarifier (SWMU 32). The sludge is generated from wastewaters from the Paint Room and the Powerhouse (Ref. 1).
Release Controls:	The sump is constructed of concrete and has a metal grating cover.
History of Releases:	No releases are reported in the available file materials. During the VSI, oil staining was evident on the soils surrounding the sump.

Unit Number:	35
Unit Name:	Inactive Sludge Sump (Photograph 35.1)
Location:	The Inactive Sludge Sump is located outside of the Wastewater Treatment Plant, adjacent to the Inactive Clarifier (SWMU 33).
Description:	The Inactive Sludge Sump is a concrete, inground unit. Solids settled to the bottom of the Inactive Clarifier were discharged to the Inactive Sludge Sump. The solids were pumped from the sump to one of the two Sludge Thickener Tanks (SWMUs 36 and 37).
Date of Start-Up:	This unit was constructed in 1963 (Ref. 1).
Date of Closure:	This unit has been inactive since 1985 (Ref. 1).
Waste Managed:	The sump received solids from acid alkali sludges until 1973, when plating operations at the plant were discontinued. With the introduction of plastic molding, the waste stream consisted of solids settled out from contaminated cooling water, paint booth washes, paint sludge, and PCB-contaminated paint sludge (B005 and B007).
Release Controls:	The sump is constructed of concrete and has a metal grating cover.
History of Releases:	No releases are reported in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	36
Unit Name:	Sludge Thickener Tank (Photographs 36.1 and 36.2)
Location:	The Sludge Thickener Tank is located outside on the southwest side of the Wastewater Treatment Plant Building.
Description:	The Sludge Thickener Tank is an inground concrete open-topped tank. Its dimensions are approximately 25 by 25 feet by 15 feet deep. The Sludge Thickener Tank receives sludge from the Sludge Sump (SWMU 34) and from the Flotation/Sedimentation Tank (SWMU 49). Thickened sludge is discharged to the Sludge Holding Tank (SWMU 38) (Ref. 129). The Sludge Thickener Tank was decontaminated when the Wastewater Treatment Plant was segregated.
Date of Start-Up:	The tank was constructed in 1963.
Date of Closure:	This tank is currently active.
Waste Managed:	The tank receives sludge generated by the settling of solids from paint room wastewater and coal yard runoff and from the settling of oily wastewater suspended solids. From 1963 to 1973, the sludge contained acid alkali solids. After 1973 the sludge was generated from contaminated cooling water, paint booth washes, paint sludge, and PCB-contaminated paint sludge (NYDEC hazardous waste codes B005 and B007).
Release Controls:	The tank is constructed of concrete.
History of Releases:	No releases are reported in the available file materials. During the VSI, liquid stains were evident on the sides of the tank. Patched cracks were also evident on the sides of the tank.

Unit Number:	37
Unit Name:	Inactive Sludge Thickener Tank (Photographs 37.1 and 37.2)
Location:	The Inactive Sludge Thickener Tank is located outside, on the southwest side of the Wastewater Treatment Plant Building.
Description:	The Inactive Sludge Thickener Tank is an inground concrete open-topped tank. Its dimensions are approximately 25 by 25 feet by 15 feet deep. This tank previously received sludge from the Inactive Sludge Sump (SWMU 35). Thickened sludge was discharged to the Sludge Holding Tank (SWMU 38) (Refs. 89 and 129).
Date of Start-Up:	This tank was constructed in 1963 (Ref. 1).
Date of Closure:	This tank was decontaminated in 1985 and has been inactive since that time.
Waste Managed:	From 1963 to 1973, the sludge contained acid alkali solids. After 1973 the sludge was generated from contaminated cooling water, paint booth washes, paint sludge, and PCB-contaminated paint sludge (NYDEC hazardous waste codes B005 and B007).
Release Controls:	The tank is constructed of concrete.
History of Releases:	No releases are reported in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	38
Unit Name:	Sludge Holding Tank (Photograph 38.1)
Location:	The Sludge Holding Tank is located outside on the southeast side of the Wastewater Treatment Plant Building.
Description:	The Sludge Holding Tank is a concrete inground open-topped tank. The tank receives thickened sludge from the Sludge Thickener Tank. The sludge is discharged to the Filter Press (SWMU 39) for dewatering (Ref. 1). From 1973 to 1985, the Sludge Holding Tank was used as the Primary Settling Tank. As the Primary Settling Tank, the unit received manufacturing plant process effluent containing paint wastes. After paint waste solids settled out, the wastewater was overflowed to secondary settling tanks (now SWMUs 48, 49, and 50) (Ref. 1). From 1963 to 1973, this tank was the Concentrated Cyanide Tank. Cyanide plating wastes containing high levels of cyanides were treated in this tank (Ref. 1).
Date of Start-Up:	The tank was constructed in 1963. The tank has been used as the Sludge Holding Tank since 1985.
Date of Closure:	This tank is currently active.
Waste Managed:	This unit currently receives sludge generated from paint wastewater and coal yard runoff and sludge from the oily wastewater treatment system. From 1963 to 1973, this tank treated concentrated cyanide wastes. From 1973 to 1985, this tank treated wastewater containing manufacturing process paint wastes (Ref. 1).
Release Controls:	The tank is constructed of concrete.
History of Releases:	No releases are reported in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	39
Unit Name:	Filter Press (Photographs 39.1 and 39.2)
Location:	The Filter Press is located in a wood shed, just southeast of the Wastewater Treatment Plant.
Description:	Sludge from the Sludge Holding Tank (SWMU 38) is discharged to the Filter Press for dewatering. A metal basin beneath the press collects filter cake from the Filter Press. The filtrate is discharged to Filter Press Sump (SWMU 64) and the dewatered sludge is discarded into the Sludge Dumpster (SWMU 63) for off-site disposal. The Filter Press is located on a portion of the inactive Drum Storage Area No. 2 (SWMU 4). The shed that encloses the unit is constructed of a wood frame, wood press board, and plastic sheeting. The Filter Press is on the Drum Storage Area concrete pad. The concrete pad is diked on three sides and is sloped to a collection sump (Filter Press Sump, SWMU 64).
Date of Start-Up:	This unit began operating in 1985.
Date of Closure:	This unit is currently active.
Waste Managed:	This unit dewaters sludge generated from paint room wastewater, coal yard runoff, and oily wastewaters.
Release Controls:	The Filter Press is located inside a wooden shed. The floor is constructed of concrete. The Drum Storage Area No. 2 concrete pad, upon which this unit sits upon, is diked on three sides and sloped to a collection sump.
History of Releases:	No releases are reported in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	40
Unit Name:	Holding Tanks (3) (Photographs 40.1 through 40.5)
Location:	The Holding Tanks are located on the southeast side of the Wastewater Treatment Plant Building.
Description:	The Holding Tanks consist of three tanks operated in series. The tanks are open-topped concrete inground units. Holding Tank 1 has a 45,000-gallon capacity, Holding Tank 2 has a 28,000-gallon capacity, and Holding Tank 3 has a 28,000-gallon capacity (Ref. 1). Holding Tank 1 receives treated effluent from the Clarifier (SWMU 32), the Carbon Filtration Units (SWMU 51), and the Contaminated Groundwater Tank (SWMU 29). After the effluent undergoes aeration, it is discharged to Holding Tank 2 for final aeration. The effluent is then discharged to Holding Tank 3 for storage and discharge to the county POTW. The effluent is conveyed from Tank 1 to Tank 2 and Tank 2 to Tank 3 via a 12-inch pipe constructed towards the bottom of each tank (Ref. 1). From 1963 to 1973, the holding tanks were used as chromium treatment tanks. Tank 1 was the receiving tank for all chrome bearing wastes generated at the facility. The chromium wastes were chemically reduced in Tank 1. Tank 2 was fed by a continuous overflow from Tank 1 and treated the wastewater with sulfur dioxide to further reduce hexavalent chromium to trivalent chromium. Tank 3 was fed by overflow from Tank 2 and was used as a polishing operation for final reduction of chromium (Ref. 1 and 89).
Date of Start-Up:	The tanks were constructed in 1963.
Date of Closure:	The tanks are currently active.
Waste Managed:	From 1963 to 1973, the holding tanks treated chromium bearing wastes. Currently, the holding tanks receive 1) treated groundwater contaminated with xylene, toluene, and ethylbenzene; 2) treated paint room wastewater and treated coal yard runoff; and 3) treated wastewater contaminated with PCB oils.
Release Controls:	The tanks are constructed with concrete.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number: 41

Unit Name: Industrial Waste Sump (Photographs 41.1 and 41.2)

Location: The Industrial Waste Sump is located on the north side of the Manufacturing Building.

Description: The Industrial Waste Sump (also called the Wastewater Holding Bunker Sump) is a concrete inground open-topped sump. The sump is located inside a small concrete shed. The sump is designed into two sections: one for pumping and the other for mixing and agitation. The sump is equipped with a high-level alarm which is connected to the plant security console for 24 hours per day, seven days per week monitoring (Ref. 1 and 112).

GMC installed the Industrial Waste Sump in 1963 when the Wastewater Treatment Plant was constructed. The Industrial Waste Sump was constructed as a pumping station to intercept process waste flow previously discharged to Ley Creek. The Industrial Waste Sump routed the process wastewater to the Wastewater Treatment Plant. The sump received metal parts wash and rinse wastewaters, metal plating wash and rinse wastewaters, die casting quench wastewaters, buffing machine air cleaning wastewaters, and miscellaneous parts cleaning operations wastewaters (Ref. 112).

In the early 1970s, the facility removed the metal forming, plating, and buffing processes and converted to plastic injection molding with some assembly and processing. The process wastewater routed to the Industrial Waste Sump after this change contained recirculating water system blowdown wastewaters, paint booth wastewaters, rinse water from a salt bath paint rack stripping operation (Kolene Unit, SWMU 6), wastewaters from washing and rinsing plastic parts before painting, and other miscellaneous operations (Ref. 112).

In 1985, GMC separated the Wastewater Treatment Plant into two parts: oily wastewater treatment and suspended solids/pH treatment. The Industrial Waste Sump now receives only oily process wastewaters. The sump discharges to the Equalization Tank 1 (SWMU 44) in the Wastewater Treatment Plant.

There have been several instances of pump failure at this unit. The failures have resulted in the release of overflow and oil to the Lagoon (SWMU 1). The Industrial Waste Sump was targeted as one of the causes of oil-contaminated wastewaters entering the Lagoon (Ref. 112). The facility has since designed a new pumping system to correct deficiencies and has sealed off the overflow pipe that allowed overflows to discharge to the Lagoon. The sump is now equipped with two electric and one gas pumps to allow for continuous pumping to the Equalization Tank 1 (SWMU

44) located at the Wastewater Treatment Plant (Ref. 1). The effluent is conveyed to the Equalization Tank 1 via overhead piping.

Date of Start-Up: The sump was constructed in 1963.

Date of Closure: This unit is currently active.

Waste Managed: From 1963 to 1973, the sump received metal parts wash and rinse wastewaters, metal plating wash and rinse wastewaters, die casting quench wastewaters, buffing machine air cleaning wastewaters, and miscellaneous parts cleaning operations wastewaters (Ref. 112).

From 1973 to 1985, process wastewaters discharged to the sump were recirculating water system blowdown, paint booth wastewaters, rinse wastewater from a salt bath paint rack stripping operation, wastewaters from washing and rinsing plastic parts before painting, and other miscellaneous operations (Ref. 112).

Currently, this sump collects process wastewater from the Manufacturing Building containing PCB-contaminated hydraulic oils (Ref. 1).

Release Controls: The sump is constructed of concrete and is housed inside a concrete shed. The sump is equipped with two electric and one gas pumps to allow continuous pumping to the Wastewater Treatment Plant.

History of Releases: There were several instances of pump failure prior to 1985. The main reasons for failure were the accumulation of paint sludge in the sump or loss of power. When a failure occurred at the sump, the overflow was discharged to the Lagoon (SWMU 1) via a sewer line connection to Outfall 002 (Ref. 110). The sump was redesigned in 1985, eliminating the problem of overflow to the Lagoon (Ref. 1).

During the VSI, oil stained gravel was evident in a depression adjacent to the Industrial Waste Sump (Oil Stains Near the Industrial Waste Sump, AOC B). Facility representatives indicated that the pipe from which the oil apparently was discharging is not connected to the Industrial Waste Sump. The source of the oil could not be determined.

Unit Number:	42
Unit Name:	Emergency Overflow Sump (Photograph 42.1)
Location:	The Emergency Overflow Sump is located in the basement of the Wastewater Treatment Plant Building.
Description:	The Emergency Overflow Sump (also called the Acid Alkali Sump) is a concrete inground sump, equipped with an electric and gasoline powered pump. The sump is covered with a metal grate. The dimensions of the sump are approximately four by four feet. The depth is unknown. The basement floor of the Wastewater Treatment Plant is sloped towards the Emergency Overflow Sump to allow any spillage to drain into the sump. Units located in the Wastewater Treatment Plant basement which have the potential to discharge spillage to the Emergency Overflow Sump include the Oil Reclamation System treatment units (SWMUs 22 through 27), the 2,000-Gallon Waste Oil Tank (SWMU 52), and a hydrochloride acid product tank. The hydrochloride acid tank spilled 1,400 to 2,000 gallons of hydrochloric acid on June 9, 1987, as the result of a fitting failure. The Emergency Overflow Sump discharges to the Equalization Tank 1 (SWMU 44) (Ref. 1).
Date of Start-Up:	The sump was installed in 1963.
Date of Closure:	The sump is currently active.
Waste Managed:	The sump collects spillage from the basement of the Wastewater Treatment Plant. Waste streams can potentially included PCB-contaminated wastewaters and oils and hydrochloric acid.
Release Controls:	The sump is located in the basement of the Wastewater Treatment Plant and is constructed of concrete.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	43
Unit Name:	Deionized Water Sump (Photograph 43.1)
Location:	The Deionized Water Sump is located in the basement of the Wastewater Treatment Plant.
Description:	The Deionized Water Sump is a concrete inground sump. The sump is covered with a metal grate and measures approximately four by four feet. The depth is not known. The sump collects overflow from the deionized water storage tank and also can collect any spills in the basement of the Wastewater Treatment Plant. The Deionized Water Sump discharges to the Equalization Tank 1 (SWMU 44).
Date of Start-Up:	The sump was installed in 1963.
Date of Closure:	The sump is currently active.
Waste Managed:	The sump collects deionized water and PCB-contaminated wastes from any spillage in the area of the sump.
Release Controls:	The sump is located in the basement of the Wastewater Treatment Plant and is constructed of concrete.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	44
Unit Name:	Equalization Tank 1 (Photograph 44.1 through 44.3)
Location:	The Equalization Tank 1 is located outside in the Wastewater Treatment Plant, on the southwest side of the Wastewater Treatment Plant Building.
Description:	Equalization Tank 1 is a 30,000-gallon concrete, open-topped, in-ground tank. This tank is at the head of the oily wastewater portion of the treatment system. Manufacturing plant process effluent is pumped to Equalization Tank 1 from the Industrial Waste Sump (SWMU 41). Equalization Tank 1 also receives wastewater from the Industrial Waste Treatment Plant Sump (SWMU 22), the Contaminated Groundwater Tank (SWMU 29), the Extruder Sump (SWMU 30), the Emergency Overflow Sump (SWMU 42), the Deionized Water Sump (SWMU 43) (Ref. 1). Equalization Tank 1 has a fiberglass liner on the inside walls. The tank is equipped with a Brill rope oil skimmer. Oil removed by the skimmer is discharged to the 2,000-Gallon Waste Oil Tank (SWMU 52). Wastewater is discharged to the Coalescing Plate Separators (SWMU 47). At the time of the VSI, the depth to the liquid level in the tank was approximately 12 feet. The liquid surface contained an oily layer. According to GMC representatives, no integrity testing has been performed on this tank. Oil staining on the soils along the eastern side of the tank was observed during the VSI. GMC representatives indicated that the oil spillage was from the rope skimmer (Ref. 1). Prior to 1973, the tank was used as a chromic acid tank (Ref. 92).
Date of Start-Up:	The tank was constructed in 1963. This tank has operated as an equalization tank since 1985.
Date of Closure:	This tank is currently in operation.
Waste Managed:	This tank treats oily wastewaters containing PCBs. From 1963 to 1973 this tank managed chromic acid.
Release Controls:	The tank is constructed of concrete and the inside of the tank is lined with fiberglass.
History of Releases:	No releases from this unit are reported in the available file materials. During the VSI, oil staining was observed along the eastern side of the tank. The oil apparently dripped from the rope skimmer used to remove oil from the tank.

Unit Number:	45, 46
Unit Name:	Equalization Tanks 2 and 3 (Photographs 45.1 and 46.1)
Location:	The Equalization Tanks 2 and 3 are located outside at the Wastewater Treatment Plant, on the southwest side of the Wastewater Treatment Plant Building.
Description:	The Equalization Tanks 2 and 3 are concrete, open-topped, inground tanks. The capacity of each tank is approximately 30,000 gallons (Ref. 1). Currently, neither of these tanks are in use; however, both have the capability of receiving overflow from the Equalization Tank 1 via an overflow weir. During the VSI, Equalization Tank 2 contained an unknown depth of water covered with oil scum. The water was greenish and algae growth was evident. The tank is coated with a fiberglass liner on the inside walls. The liner was not intact and the tank sides showed evidence of corrosion. Equalization Tank 3 contained approximately six inches of water at the time of the VSI. This tank also is coated with a fiberglass liner on the inside walls. This liner also showed signs of deterioration. Prior to 1973, these two tanks operated as chromic acid tanks (Ref. 92)
Date of Start-Up:	The tanks were constructed in 1963. The tanks began operation as secondary equalization tanks in 1985.
Date of Closure:	These units are currently active.
Waste Managed:	These tanks contain PCB-contaminated wastewater. Prior to 1973, these tanks managed chromic acid.
Release Controls:	The tanks are constructed of concrete and are coated with a fiberglass lining.
History of Releases:	No releases are documented in the available file materials. During the VSI, the fiberglass lining on the inside walls of both tanks appeared to be deteriorating and the walls of Equalization Tank 2 showed evidence of corrosion.

Unit Number:	47
Unit Name:	Coalescing Plate Separators (2) (Photograph 47.1)
Location:	The Coalescing Plate Separators are located under a roofed area, on the east side of the Wastewater Treatment Plant Building.
Description:	The Coalescing Plate Separators are two steel tanks located on a platform over the Batch Tanks (SWMU 48) and the Flotation/Sedimentation Tank (SWMU 49). The separators remove free and emulsified oil from wastewater received from Equalization Tank 1 (SWMU 44). The removed oil is stored in the 3,000-Gallon Waste Oil Tank (SWMU 53). Effluent from the Coalescing Plate Separators is discharged to the Batch Tanks (Ref. 1 and 129).
Date of Start-Up:	This unit was installed in 1985 (Ref. 1).
Date of Closure:	This unit is currently active.
Waste Managed:	This unit treats oily wastewaters containing PCBs.
Release Controls:	The tanks are located over the Batch Tanks (SWMU 48) and the Flotation/Sedimentation tank (SWMU 49) and under the roofed area of the Wastewater Treatment Plant.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	48
Unit Name:	Batch Tanks No. 1 and No. 2 (2) (Photographs 48.1 and 48.2)
Location:	The Batch Tanks No. 1 and No. 2 are located outside, under a roofed area on the southeast side of the Wastewater Treatment Plant Building.
Description:	The Batch Tanks No. 1 and No. 2 are two concrete inground open-topped tanks. Each tank measures approximately 20 by 20 feet. The Batch Tanks receive wastewater from the Coalescing Plate Separators (SWMU 47). In the Batch Tanks, polymer is added to the wastewater to aid in the settling of suspended solids. The wastewater is then discharged to the Flotation/Sedimentation Tank (SWMU 49) (Refs. 1 and 129). The Batch Tanks are located within the Former Cyanide Tank No. 2. From 1973 to 1985, the Cyanide Tank No. 2 was operated as a secondary settling tank for paint wastewater. In 1985, the Cyanide Tank No. 2 was divided into the Batch Tanks, the Flotation/Sedimentation Tank (SWMU 49), and the Wet Well (SWMU 50).
Date of Start-Up:	The tanks were originally constructed in 1963 as the Cyanide Tank No. 2. The Batch Tanks have operated since 1985.
Date of Closure:	These tanks are currently active.
Waste Managed:	Currently, these tanks treat oily wastewaters containing PCBs. The tanks were previously part of a larger tank that from 1963 to 1973 treated plating wastewater containing cyanide and from 1973 to 1985 treated paint wastewater.
Release Controls:	The tanks are constructed of concrete and are located under a roofed area.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	49
Unit Name:	Flotation/Sedimentation Tank (Photograph 49.1)
Location:	The Flotation/Sedimentation Tank is located under a roofed area on the southeast side of the Wastewater Treatment Plant Building.
Description:	The Flotation/Sedimentation Tank is a concrete, inground open-topped tank. Its capacity is approximately 50,000 gallons. The Flotation/Sedimentation Tank Receives wastewater from the Batch Tanks (SWMU 48) for settling and oil removal. Removed oil is stored in the 3,000-Gallon Waste Oil Tank (SWMU 53). Sludge from the Flotation/Sedimentation Tank is pumped to the Sludge Thickener Tank (SWMU 36) and effluent is discharged to the Wet Well (SWMU 50) (Refs. 1 and 129). The Flotation/Sedimentation Tank is located within the former Cyanide Tank No. 2. From 1973 to 1985, the Cyanide Tank No. 2 was operated as a secondary settling tank for paint wastewater. In 1985, the Cyanide Tank No. 2 was divided into the Flotation/Sedimentation Tank, the Batch Tanks (SWMU 48), and the Wet Well (SWMU 50) (Ref. 1).
Date of Start-Up:	The tank was originally constructed in 1963 as the Cyanide Tank No. 2. In 1985, the tank was modified to its current design (Ref. 1).
Date of Closure:	The tank is currently active.
Waste Managed:	Currently, this tank treats oily wastewaters containing PCBs. The tank was previously part of a larger tank that from 1963 to 1973 treated plating wastewater containing cyanide and from 1973 to 1985 treated paint wastewater.
Release Controls:	The tank is constructed of concrete and is located with a roofed area.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	50
Unit Name:	Wet Well (Photograph 50.1)
Location:	The Wet Well is located outside under a roofed area on the southeast side of the Wastewater Treatment Plant Building.
Description:	The Wet Well is a concrete inground open-topped tank. It measures approximately ten by ten feet. The Wet Well receives effluent from the Flotation/Sedimentation Tank (SWMU 49) and discharges to the Carbon Filtration Units (SWMU 51) (Refs. 1 and 129). The Wet Well is located within the Former Cyanide Tank No. 2. From 1973 to 1985, the Cyanide Tank No. 2 was operated as a secondary settling tank for paint wastewater. In 1985, the Cyanide Tank No. 2 was divided into the Wet Well, the Batch Tanks (SWMU 48), and the Flotation/Sedimentation Tank (SWMU 49) (Ref. 1).
Date of Start-Up:	This tank was originally constructed in 1963 as the Cyanide Tank No. 2. In 1985, the tank was modified to its current design (Ref. 1).
Date of Closure:	This tank is currently active.
Waste Managed:	Currently, this tank treats oily wastewaters containing PCBs. The tank was previously part of a larger tank that from 1963 to 1973 treated plating wastewater containing cyanide and from 1973 to 1985 treated paint wastewater.
Release Controls:	The tank is constructed of concrete and is located within a roofed area.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	51
Unit Name:	Carbon Filtration Units (Photograph 51.1)
Location:	The Carbon Filtration Units are located inside the Wastewater Treatment Plant Building.
Description:	The Carbon Filtration Units consist of four above-ground plastic cartridges. The units are located within a four-inch high concrete curbed area. The units are operated in parallel. Two units are regularly used, while the other two are kept in reserve for backup use. The Carbon Filtration Units receive effluent from the Wet Well (SWMU 50). Filtered effluent is discharged to the Holding Tanks (SWMU 40). Cartridges are changed approximately every 40 to 60 days (Refs. 1 and 129).
Date of Start-Up:	The Carbon Filtration Units were installed in 1985.
Date of Closure:	These units are currently active.
Waste Managed:	These units treat oily wastewater contaminated with PCBs.
Release Controls:	The unit is located indoors on a concrete floor and is placed within a four-inch high, concrete, curbed area.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	52
Unit Name:	2,000-Gallon Waste Oil Tank (Photograph 52.1)
Location:	This tank is located in the basement of the Wastewater Treatment Plant Building.
Description:	The 2,000-Gallon Waste Oil Tank is a steel tank elevated horizontally on cradles approximately four feet over a concrete floor. A five-inch concrete curb surrounds the tank area. This tank receives PCB-contaminated oil skimmed from the wastewater in the Equalization Tank 1 (SWMU 44). The tank discharges to the Waste Oil Bunkers (SWMU 54) (Refs. 1 and 129).
Date of Start-Up:	This tank was installed in 1985 (Ref 1).
Date of Closure:	This tank is currently active.
Waste Managed:	This tank stores PCB-contaminated oil.
Release Controls:	The tank is located over a concrete floor in the basement of the Wastewater Treatment Plant Building and within a five-inch high concrete curbed area.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	53
Unit Name:	3,000-Gallon Waste Oil Tank (Photograph 53.1)
Location:	This tank is located outside under a roofed area on the east side of the Wastewater Treatment Plant Building.
Description:	The 3,000-Gallon Waste Oil Tank is a steel, cylindrical, fully enclosed tank. The tank is elevated horizontally on cradles within a 150,000-gallon concrete inground containment tank. The concrete containment tank was the Former Cyanide Tank No. 1 (SWMU 56) (Ref. 1). The 3,000-Gallon Waste Oil Tank stores PCB-contaminated oil received from the Coalescing Plate Separators (SWMU 47) and the Flotation/Sedimentation Tank (SWMU 49). Waste oil is transferred from this tank to the Waste Oil Bunkers (SWMU 54) (Refs. 1 and 129).
Date of Start-Up:	This tank was installed in 1985.
Date of Closure:	This tank is currently active.
Waste Managed:	This tank stores PCB-contaminated oil.
Release Controls:	The tank is elevated horizontally on cradles within a 150,000-gallon concrete containment tank. The tank is fully enclosed.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	54
Unit Name:	Waste Oil Bunkers (2) (Photographs 54.1 and 54.2)
Location:	The Waste Oil Bunkers are located outside on the southwest side of the Wastewater Treatment Plant Building.
Description:	There are eight 10,000-gallon, close-topped steel tanks located within two 45,000-gallon concrete, inground, containment tanks currently or formerly used for the storage of PCB-contaminated waste oils. Two of the Waste Oil Bunkers (SWMU 54) currently are used for the storage of PCB-contaminated waste oils. Four are inactive (Inactive Waste Oil Bunkers, SWMU 55) and two are used for the storage of waste solvents (Emulsifier Bunkers, SWMU 72). The inground containment tanks, within which the Waste Oil Bunkers are located, were formerly the Acid Alkali Tanks No. 1 and 2 (SWMU 62) (Refs 1 and 129). The active Waste Oil Bunkers store PCB-contaminated waste oils received from the 2,000-Gallon Waste Oil Tank (SWMU 52) and the 3,000-Gallon Waste Oil Tank (SWMU 53). The Waste Oil Bunkers also receive PCB-contaminated oil from the Dirty Oil Tanks (SWMU 21) when the oil contains PCBs at a concentration of greater than 20 parts per million. Oil from the Waste Oil Bunkers is shipped off site for disposal (Refs. 1 and 129).
Date of Start-Up:	The Waste Oil Bunkers were installed in 1973.
Date of Closure:	The tanks are currently active.
Waste Managed:	The tanks store PCB-contaminated waste oil.
Release Controls:	The tanks are located with an inground, concrete, containment tank.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	55
Unit Name:	Inactive Waste Oil Bunkers (4) (Photographs 55.1 and 55.2)
Location:	The Waste Oil Bunkers are located outside on the southwest side of the Wastewater Treatment Plant Building.
Description:	There are eight 10,000-gallon, close-topped steel tanks located within two 45,000-gallon concrete, inground, containment tanks currently or formerly used for the storage of PCB-contaminated waste oils. Two of the Waste Oil Bunkers (SWMU 54) currently are used for the storage of PCB-contaminated waste oils. Four are inactive (Inactive Waste Oil Bunkers, SWMU 55) and two are used for the storage of waste solvents (Emulsifier Bunkers, SWMU 72). The inground containment tanks, within which the Waste Oil Bunkers are located, were formerly the Acid Alkali Tanks No. 1 and 2 (SWMU 62) (Refs 1 and 129). The Inactive Waste Oil Bunkers formerly stored PCB-contaminated waste oil received from the Dirty Oil Tanks (SWMU 21) when the PCB concentration was greater than 20 ppm, the 2,000-Gallon Waste Oil Tank (SWMU 52), and the 3,000-Gallon Waste Oil Tank (SWMU 53). All waste were removed from these tanks in 1985 and sent off site for disposal. After waste removal, the tanks were decontaminated (Ref. 1).
Date of Start-Up:	These tanks were installed in 1973.
Date of Closure:	The tanks were emptied and decontaminated in 1985 (Ref. 1).
Waste Managed:	The tanks stored PCB-contaminated waste oil.
Release Controls:	The tanks are located within an inground concrete containment tank.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	56
Unit Name:	Former Cyanide Tank No. 1 (Photograph 56.1)
Location:	The Former Cyanide Tank No. 1 is located outside on the east side of the Wastewater Treatment Plant Building.
Description:	The Former Cyanide Tank No. 1 was a concrete inground open-topped tank. The tank had a capacity of 120,000 gallons. All cyanide waste from plating processes was received in this tank and the Cyanide Tank No. 2 (now the Batch Tanks No. 1 and 2, SWMU 48; the Flotation/Sedimentation Tank, SWMU 49; and the Wet Well, SWMU 50). While one of the cyanide tanks was being filled, the other was undergoing oxidation to destroy the cyanide ions. After oxidation, wastewater from the cyanide tanks was discharged to the Acid Alkali Tanks (SWMU 62) (Refs. 1 and 89). The Former Cyanide Tank No. 1 was emptied of wastes and decontaminated in 1973. Currently, this tank serves as secondary containment for the Dirty Oil Tanks (SWMU 21), the 3,000-Gallon Waste Oil Tank (SWMU 53), and a 10,000-gallon clean oil tank (Ref. 1).
Date of Start-Up:	The tank was constructed in 1963.
Date of Closure:	The unit has been inactive since 1973.
Waste Managed:	The tank treated plating wastes containing cyanide.
Release Controls:	The tank was constructed of concrete and was equipped with a high-level alarm.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	57, 58, and 59
Unit Name:	Former Sludge Holding Tanks (2) (SWMU 57) (Photograph 57.1) Vacuum Filters (2) (SWMU 58) (Photograph 58.1) Sludge Conveyor (SWMU 59) (Photograph 59.1)
Location:	These units were located inside the Wastewater Treatment Plant Building.
Description:	These units operated from 1963 to 1973. Each of these units was decontaminated and removed in 1985 and disposed as waste steel. The Holding Tanks received tank sludge contaminated with PCBs from the Sludge Thickener Tank (SWMU 36) and the Inactive Sludge Thickener Tank (SWMU 30) and then discharged the sludge to the Vacuum Filters for dewatering. The dewatered sludge was discharged to the Sludge Conveyor, which transferred the dewatered sludge to a gondola for off-site disposal (Refs. 1, 71, and 92).
Date of Start-Up:	The units began operation in 1963 (Ref. 1).
Date of Closure:	The units became inactive in 1973. In 1985, the units were decontaminated and disposed off site (Ref. 1).
Waste Managed:	The units managed wastewater treatment sludge from the treatment of cyanide and chromium containing plating wastewaters.
Release Controls:	The units were located indoors on a concrete floor.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	60
Unit Name:	Corrugated Plate Interceptor Unit (Photograph 60.1)
Location:	The Corrugated Plate Interceptor Unit was located inside the Wastewater Treatment Plant Building on the main floor.
Description:	The Corrugated Plate Interceptor Unit was used to slow down the flow of wastewater from the secondary settling tank and allow oil to float to the surface (for a description of the secondary settling tank, see descriptions for SWMUs 38, 48, 49, and 50). The interceptor unit was installed in 1973 and removed in 1985 when the Wastewater Treatment Plant was redesigned.
Date of Start-Up:	The unit was installed in 1973.
Date of Closure:	The unit was removed in 1985.
Waste Managed:	The unit managed process wastewaters including contaminated cooling water, paint booth washes, paint sludge, and PCB-contaminated paint sludge (NYDEC hazardous waste codes B005 and B007).
Release Controls:	The unit was located indoors on a concrete floor.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	61
Unit Name:	SO_2 Scrubbers (2) (Photograph 61.1)
Location:	The SO_2 Scrubbers were located outside on the southeast side of the Wastewater Treatment Plant Building.
Description:	Two SO_2 Scrubbers were used to reduce chromium in wastewaters received from the former chromium treatment tanks (now the Holding Tanks, SWMU 40). The wastewater underwent continuous recirculation between the chromium treatment tanks and the scrubbers, through which flue gas from boiler operations was passed (Refs. 1 and 92).
Date of Start-Up:	The scrubbers began operating in 1963 (Ref. 1).
Date of Closure:	The scrubbers were removed in 1973 (Ref. 1).
Waste Managed:	The scrubbers treated chromium bearing wastes.
Release Controls:	The $S0_2$ Scrubbers were enclosed metal tanks.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	62
Unit Name:	Alkali Tanks No. 1 and No. 2 (2) (Photograph 62.1)
Location:	These tanks are located outside on the southwest side of the Wastewater Treatment Plant Building.
Description:	The Alkali Tanks No. 1 and No. 2 are concrete inground open-topped tanks. These tanks are inactive and now serve as secondary containment for the Waste Oil Bunkers (SWMU 54), the Inactive Waste Oil Bunkers (SWMU 55), and the Emulsifier Bunkers (SWMU 72) (Ref. 1). Each of the Alkali Tanks have a capacity of 45,000 gallons (Refs. 1 and 89). Alkali Tank No. 1 received all wastewaters other than the chromium and cyanide bearing wastewaters from the processing area. Metal coagulants were added and blended in this tank prior to discharge to Alkali Tank No. 2. Tank No. 2 was fed by overflow from the Tank No. 1 and by transfer of aliquots from the treated cyanide tanks. The solutions were blended in Tank No. 2 for uniform consistency prior to discharge to Alkali Tank No. 3 (now the Contaminated Groundwater Tank, SWMU 29). Tank No. 3 was fed by overflow from Tank No. 2 and from the chromium treatment tanks (now the Holding Tanks, SWMU 40). Final blending and neutralization were accomplished in Tank No. 3 prior to discharge to the Clarifiers (SWMUs 32 and 33) for solids separation (Ref. 89).
Date of Start-Up:	The Alkali Tanks were installed in 1963.
Date of Closure:	The Alkali Tanks were closed in 1973.
Waste Managed:	The Alkali Tanks treated all process wastewaters between 1963 and 1973. Some wastes were treated by cyanide oxidation or chromium reduction prior to discharge to the Alkali Tanks.
Release Controls:	These tanks are constructed of concrete.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	63
Unit Name:	Sludge Dumpster (Photograph 63.1)
Location:	The Sludge Dumpster is located outside, on the west side of the shed holding the Filter Press (SWMU 39).
Description:	The Sludge Dumpster collects dewatered sludge from the Filter Press (SWMU 39). The Sludge Dumpster is a 20-yd^3 roll-off box located in a concrete-paved area. The dewatered sludge is removed approximately every 15 days and is shipped off-site for disposal. The sludge is kept covered with a tarp (Ref. 1).
Date of Start-Up:	The Sludge Dumpster has been used for the collection of dewatered sludge since 1985 (Ref. 1).
Date of Closure:	This unit is currently active.
Waste Managed:	The unit collects dewatered sludge generated from process wastewater.
Release Controls:	The dumpster is covered with a tarp and located on a concrete pad.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	64
Unit Name:	Filter Press Sump (Photograph 64.1)
Location:	The Filter Press Sump is located at the southwest end of the inactive Drum Storage Area No. 2 (SWMU 4).
Description:	The Filter Press Sump is used to collect effluent from the Filter Press (SWMU 39). The sump is located within the containment system for the inactive Drum Storage Area No. 2 (SWMU 4). From 1964 to 1981 this sump was used to contain any spills on the Drum Storage No. 2 pad. The sump was reactivated in 1985 with the redesign of the Wastewater Treatment Plant for its current use. The sump is approximately two feet by two feet with an unknown depth. Effluent from the Filter Press (SWMU 39) goes to this unit and then is pumped to Equalization Tank 1 (SWMU 44) for treatment. Stains were visible on the concrete pad and soil surrounding this unit.
Date of Start-Up:	This unit began operation in 1964 as a containment sump for Drum Storage Area No. 2 (SWMU 4). This use was discontinued in 1981. In 1985, the Sump was reactivated as the Filter Press Sump.
Date of Closure:	This unit is currently active.
Waste Managed:	This unit previously managed spills within Drum Storage Area No. 2 (SWMU 4) and currently manages effluent from the Filter Press (SWMU 39).
Release Controls:	The unit is an inground concrete sump.
History of Releases:	Oil stains on the concrete pad of Drum Storage Area No. 2 and on the soil surrounding the sump were noted at the time of the VSI.

Unit Number:	65
Unit Name:	Hoffman Filter Unit (Photograph 65.1)
Location:	The Hoffman Filter Unit is located inside the Manufacturing Building.
Description:	The Hoffman Filter Unit was used from 1974 to 1988 to filter make-up water used in paint booths located in the Manufacturing Building. The Hoffman Filter Unit consists of conveyor type metal grating covered with a filter cloth, underlain by a steel tank which measures approximately 50 by 15 feet by 15 feet high. The steel tank sits on the concrete floor of the Manufacturing Building (Ref. 1). Make-up water is sprayed over the filter to remove impurities. Make-up water collected in the steel tank is recirculated back to the paint booths for reuse. When the water becomes too contaminated to be recirculated back to the paint booths, the wastewater was discharged to the Paint Room Sump (SWMU 31) for treatment at the Wastewater Treatment Plant. Prior to the installation of the Paint Room Sump in 1983, the wastewater was discharged to the Wastewater Treatment Plant via the Industrial Waste Treatment Plant Sump (SWMU 22) (Ref. 1).
Date of Start-Up:	The unit was installed in 1974 (Ref. 1).
Date of Closure:	The unit still exists, but has been inactive since mid 1988 (Ref. 1).
Waste Managed:	The Hoffman Filter treated spray paint booth make-up water. GMC agreed to submit an analysis of the waste stream for this report, but it is has not been received as of the submittal date of this report.
Release Controls:	The unit is located on a concrete floor inside the Manufacturing Building.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	66
Unit Name:	Old Storm Sewer System (No Photograph)
Location:	The Old Storm Sewer System is located underground throughout the facility.
Description:	The Old Storm Sewer System was initially constructed in 1952 when the original construction of the GMC facility was completed. Major additions and modifications were made to the GMC facility in 1965 and 1975. The Old Storm Sewer System was expanded and modified at the same times. In 1985-86, the Old Storm Sewer System in the eastern portion of the facility was replaced by the New Storm Sewer System (SWMU 68). In 1988, the remaining Old Storm Sewer System in the western portion of the facility was replaced by the New Storm Sewer System. The old sewer lines are constructed of clay and concrete. The old sewer lines have been left in place and continue to collect contaminated oil from beneath the Manufacturing Building. The Old Storm Sewer System previously discharged to Outfall 001 located at the Holding Pond (SWMU 2) (Ref. 1 and 80). Currently, contaminated oil collected by the sewer lines is discharged to the Interceptor Sumps (SWMU 67) (Ref. 1). As a result of a NYDEC Consent Agreement, GMC agreed to investigate the source of PCB-contaminated oil being discharged to the Holding Pond (SWMU 2). This investigation detected leakage from approximately 65 to 70 percent of the Underground Oil Reclamation Sumps (13). GMC representatives believe that oil leaking from the sumps entered the Old Storm Sewer System through deteriorating sewer pipes and was conveyed through the sewer system to the Holding Pond (SWMU 2) (Ref. 1 and 80).
Date of Start-up:	This unit was constructed in 1952 with modifications in 1965 and 1975.
Date of Closure:	This unit was replaced with a new system in 1985 through 1988. The lines have been left in place and continue to collect contaminated oil from beneath the Manufacturing Building.
Waste Managed:	This unit collected runoff from plant roadways and parking lots. It is also suspected that the unit transported PCB-contaminated oil from leaking Underground Oil Reclamation Sumps (SWMU 13) to the Holding Pond (SWMU 2).
Release Controls:	There were no release controls associated with this unit.
History of Releases:	GMC representatives believe that the sewer lines have undergone deterioration and suspect that oil leakage from the plant has entered the sewer lines (Ref. 1 and 80).

Unit Number:	67
Unit Name:	New Storm Sewer System (Photograph 67.1)
Location:	The New Storm Sewer System is located throughout the facility.
Description:	The New Storm Sewer System consists of a roof leader system installed on the roofs of GMC buildings to collect rainwater. Drainage pipes convey rainwater down the walls inside of the buildings. At the base of the building, the drainage pipe exits through the wall to the outdoors and then underground. The New Storm Sewer System discharges to Outfall 003 under an SPDES permit (Ref. 1 and 95).
Date of Start-Up:	This unit was installed in 1985 and 86 (Ref. 1).
Date of Closure:	This unit is currently active.
Waste Managed:	This unit collects rainwater from the roofs of plant buildings.
Release Controls:	The pipes are constructed of plastic. A portion of the piping is located above ground and/or indoors.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	68
Unit Name:	Oil-Contaminated Rubbish Containers (22) (Photograph 68.1)
Location:	The Oil-Contaminated Rubbish Containers are located inside the Manufacturing Building.
Description:	The Oil-Contaminated Rubbish Containers consist of one-cubic yard mobile dumpsters located throughout the Manufacturing Building. PCB-contaminated oily rubbish such as oil-coated pellets, plastics, and cardboard, is discarded into the dumpsters. The dumpsters are emptied daily into the roll-off boxes stored in the Hazardous Waste Accumulation Area (SWMU 5). There are 22 Oil-Contaminated Rubbish Containers at the facility.
Date of Start-Up:	The rubbish containers have been in use since 1985.
Date of Closure:	The containers are currently active.
Waste Managed:	The containers stored PCB-contaminated rubbish.
Release Controls:	The containers are located inside the Manufacturing Building on a concrete floor.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	69
Unit Name:	Past Landfill (Photograph 69.1)
Location:	The Past Landfill is located northwest of the Manufacturing Building along the property boundary.
Description:	The landfill is roughly rectangular in shape and measures 650 feet by 200 feet by 550 feet by 350 feet (Ref. 2). Waste disposed in the landfill include Powerhouse boiler ash, paint sludge (D002), buffing sludge, plating waste (reactive and toxic), and general trash and construction debris (Ref. 1 and 116). No records exist regarding waste disposal or quantities of wastes disposed in the landfill. The landfill was closed in 1962 and has been covered with six to eight feet of clay (Ref. 116). In 1985, GMC installed a number of groundwater monitoring wells at the facility in order to investigate the extent of contamination resulting from a xylene spill (Thinner Tank/Xylene Spill, AOC A) which occurred approximately 450 feet south of the landfill and to determine the source and the extent of PCB contamination at the facility. The locations of the monitoring wells are shown in Figure II-2 in Chapter II. Analytical results from sampling conducted in 1985 are shown in Tables III-1 and III-2 in Chapter III. The analytical results suggest that hazardous constituents may have migrated from the landfill to the groundwater. Constituents detected in monitoring wells installed at the boundaries of and downgradient from the landfill include trans-1,2-dichloroethylene, vinyl chloride, toluene, chloroform, nickel, zinc, chromium, arsenic, and PCBs.
Date of Start-Up:	The landfill began operating in 1952.
Date of Closure:	The landfill was closed in 1962.
Waste Managed:	Powerhouse boiler ash, paint sludge (D002), buffing sludge, plating waste (reactive and toxic), and general trash and construction debris were disposed in this landfill (Ref. 1 and 116).
Release Controls:	The landfill has been covered with six to eight feet of clay.
History of Releases:	No evidence of release was observed during the VSI. Hazardous constituents were detected in downgradient monitoring wells sampled and analyzed in 1985. The landfill may be a source of the contamination.

Unit Number:	70
Unit Name:	Flammable Storage Room Waste Accumulation Area (Photograph 70.1)
Location:	The Flammable Storage Room Waste Accumulation Area is located inside the Manufacturing Building.
Description:	The Flammable Storage Room Waste Accumulation Area is a less than 90-day accumulation point for 55-gallon drums of paint solids and nonchlorinated waste solvents. The accumulation point is located in a storage room containing mainly drummed and boxed product materials. Up to four solvent waste drums are stored here at any one time. After four drums are filled, they are transferred to the Drum Storage Area No. 1 (SWMU 3). The drums are stored on the concrete floor of the building. The floors are sloped to prevent any spillage from draining from the storage room. The door to this room is kept locked.
Date of Start-Up:	The start-up date of this unit is unknown.
Date of Closure:	This unit is currently active.
Waste Managed:	Waste stored in this area include paint solids and nonchlorinated waste solvents, including xylene, toluene, ethylbenzene, methyl ethyl ketone, and methyl isobutyl ketone.
Release Controls:	The storage area is underlain by a concrete floor and is inside a locked storage room inside the Manufacturing Building.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	71
Unit Name:	Emulsifier Bunkers (2) (Photograph 71.1)
Location:	The Emulsifier Bunkers are located outside on the south side of the Wastewater Treatment Plant Building.
Description:	There are eight 10,000-gallon, close-topped steel tanks located within two 45,000-gallon concrete, inground, containment tanks currently or formerly used for the storage of PCB-contaminated waste oils. Two of the Waste Oil Bunkers (SWMU 54) currently are used for the storage of PCB-contaminated waste oils. Four are inactive (Inactive Waste Oil Bunkers, SWMU 55) and two are used for the storage of waste solvents (Emulsifier Bunkers, SWMU 72). The inground containment tanks, within which the Waste Oil Bunkers are located, were formerly the Acid Alkali Tanks No. 1 and 2 (SWMU 62) (Refs 1 and 129). The Emulsifier Bunkers are used to contain waste solvents generated by the painting process.
Date of Start-Up:	This unit began operation as a Waste Oil Bunker in 1973 or 1974. The unit was emptied and decontaminated in 1985. The unit began operation as an Emulsifier Bunker in January 1989.
Date of Closure:	This unit is currently active.
Waste Managed:	This unit previously managed PCB-contaminated waste oil and currently manages waste solvents.
Release Controls:	The Emulsifier Bunkers are located within a 45,000-gallon concrete inground containment tank.
History of Releases:	No releases are documented in the available file materials. No evidence of release was observed during the VSI.

Unit Number:	72
Unit Name:	Incinerator (Photograph 72.1)
Location:	The Incinerator was located on the west side of the Sludge Thickener Tank (SWMU 36) in the Wastewater Treatment Plant (Ref. 116).
Description:	The Incinerator operated from 1969 to 1972. The Incinerator was capable of burning 280 pounds/hour or 4250 gallon/month of liquid waste. The waste stream included 70 percent waste solvents, 12 percent trichloroethylene, 13 percent scrap paint, and 5 percent waste oil. The estimated annual quantity of waste burned was 24 tons of liquid trichloroethylene, 170 tons of waste solvents and scrap paint, and 156 tons of oil and grease. Tests conducted by GMC indicate that the emission rate of particulate matter was 0.295 to 0.371 pounds/hour (Ref. 116).
Date of Start-Up:	The Incinerator began operation in 1969.
Date of Closure:	The unit was taken out of service in 1972.
Waste Managed:	The unit incinerated trichloroethylene, waste solvents, waste paint, and waste oil.
Release Controls:	Release controls for this unit are unknown.
History of Releases:	No releases are documented in the available file materials. Facility representatives were unable to provide the exact location of the Incinerator, but no evidence of release was observed in the general area.